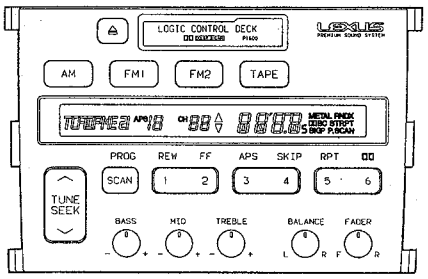
PIONEER®
The Art of Entertainment

Service Manual



ORDER NO.
CRT1368

HEAD UNIT

KEH-9261ZT UC
KEH-9261ZT-91 UC

● **These models have been installed in LEXUS SC400 and SC300.**

CONTENTS

1. DISASSEMBLY 3
2. BLOCK DIAGRAM 5
3. CONNECTOR FUNCTION DESCRIPTION 7
4. SPECIFICATIONS 7
5. GENERAL GUIDE 8
6. ADJUSTMENT 10
7. CONNECTION DIAGRAM 27
8. SCHEMATIC CIRCUIT DIAGRAM 29
9. CIRCUIT DIAGRAM AND P. C. BOARDS PATTERN 32
10. CHASSIS EXPLODED VIEW (1) 48
11. CHASSIS EXPLODED VIEW (2) 51
12. CASSETTE MECHANISM ASSY EXPLODED VIEW 54
13. ELECTRICAL PARTS LIST 57

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O. Box 1760, Long Beach, California 90801 U.S.A.
PIONEER ELECTRONICS OF CANADA, INC. 505 Cochrane Drive, Markham, Ontario L3R 8E3 Canada
PIONEER ELECTRONIC [EUROPE] N.V. Keetberglaan 1, 2740 Beveren, Belgium
PIONEER ELECTRONICS AUSTRALIA PTY. LTD. 178-184 Boundary Road, Braeside, Victoria 3195, Australia TEL: [03] 580-9911

© PIONEER ELECTRONIC CORPORATION 1991

FD MAR. 1991 Printed in Japan

Model	Supplementary Model	TOYOTA Part No.	ID No.
KEH-M9261ZT/UC	KEH-9161ZT-91/UC	86120-24210	P1600

- Supplementary model is indentical to the original model except for the addition of following items.

Carton	CHA1592
Styrofoam R	CHP1273
Styrofoam L	CHP1274
Cover	CEG-236

- Dolby and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.
- Noise Reduction System manufactured under license from Dolby Laboratories Licensing Corporation.
- See the separate manual CX-156 (CRT-468) for the cassette mechanism description.

- If this equipment is not connected with the satellite switch, it is not possible to turn on and off the power supply for the radio nor adjust the volume. When repairing, be sure to connect the satellite switch jig to this unit.

1. DISASSEMBLY

● Removing the Case (Upper)

1. Insert and turn a tweezers to remove the case.
2. Raise the case to remove.

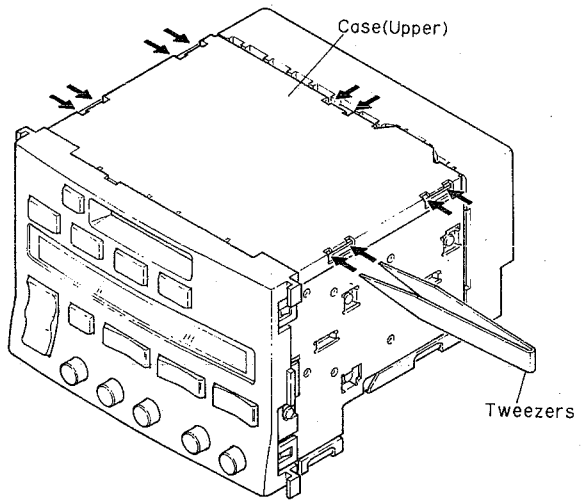


Fig. 1

● Removing the Grille Assy

1. Remove the two screws.
2. Press the tabs at four locations, and then pull out the grille assy.

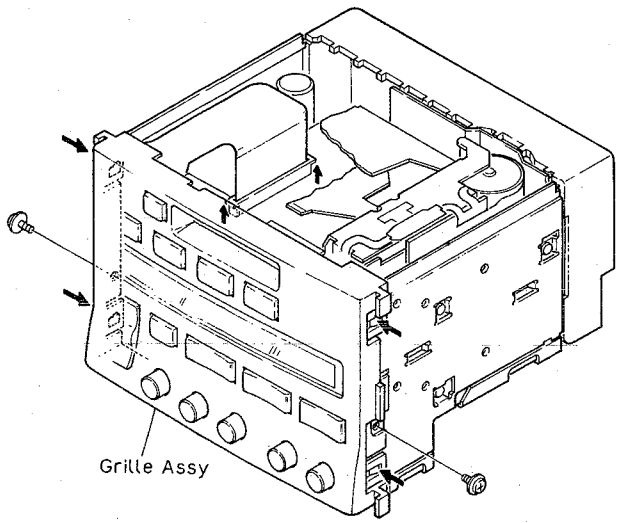


Fig. 2

● Removing the Cassette Mechanism Assy

1. Remove the four screws.
2. Disconnect the connector.
3. Remove the cassette mechanism assy.

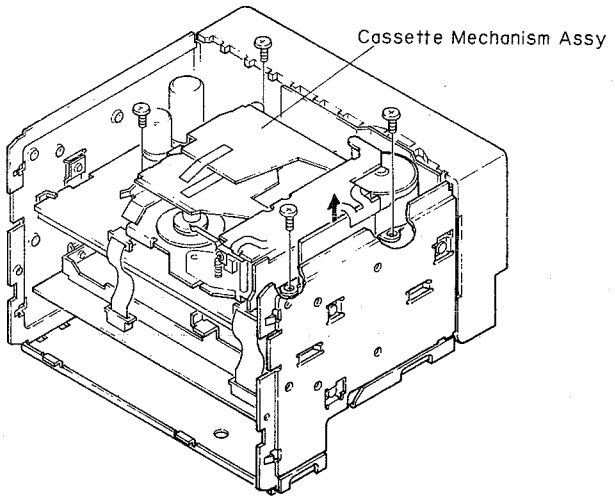


Fig. 3

● Removing the Case (Lower)

1. Insert and turn a tweezers to remove the case.
2. Raise the case to remove.

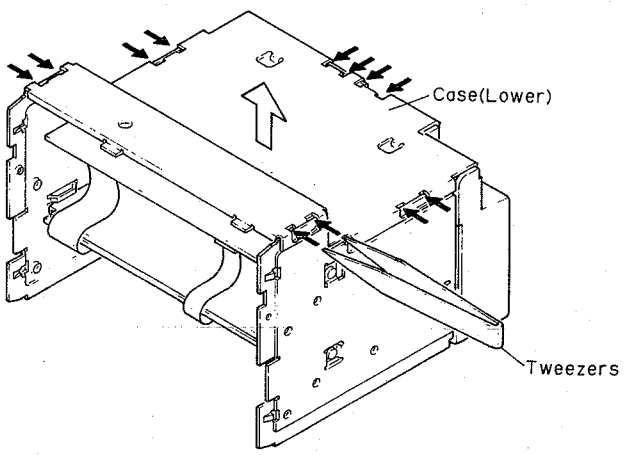


Fig. 4

● Removing the Power Amp Section

1. Remove the four screws A.
2. Disconnect the four connectors, and then remove the power amp section.

● Removing the Control Unit

1. Remove the four screws B.
2. Disconnect the two connectors, and then remove the control unit.

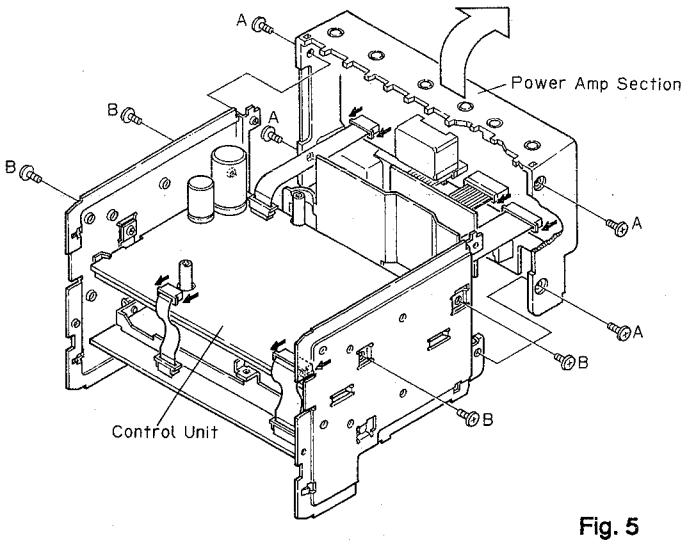


Fig. 5

● Removing the Heat Sink

1. Remove the six screws C and a screw D.
2. Remove the heat sink.

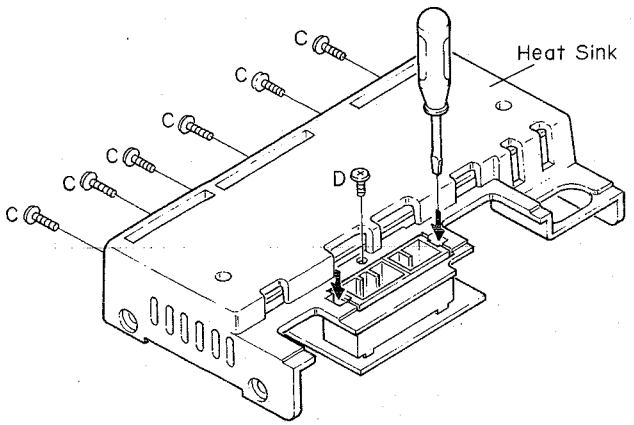


Fig. 6

● Removing the Key Board

1. Remove the nine screws.
2. Disconnect the connector.
3. Remove the key board.

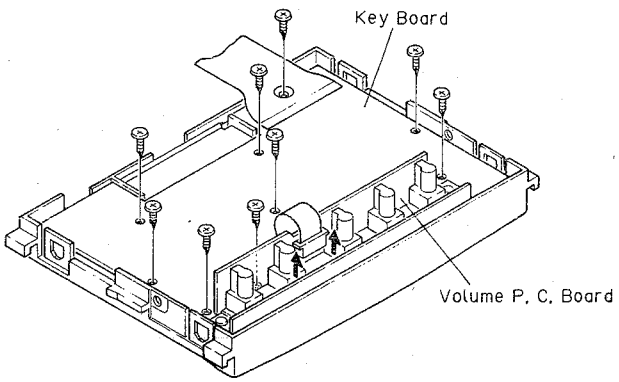


Fig. 7

2. BLOCK DIAGRAM

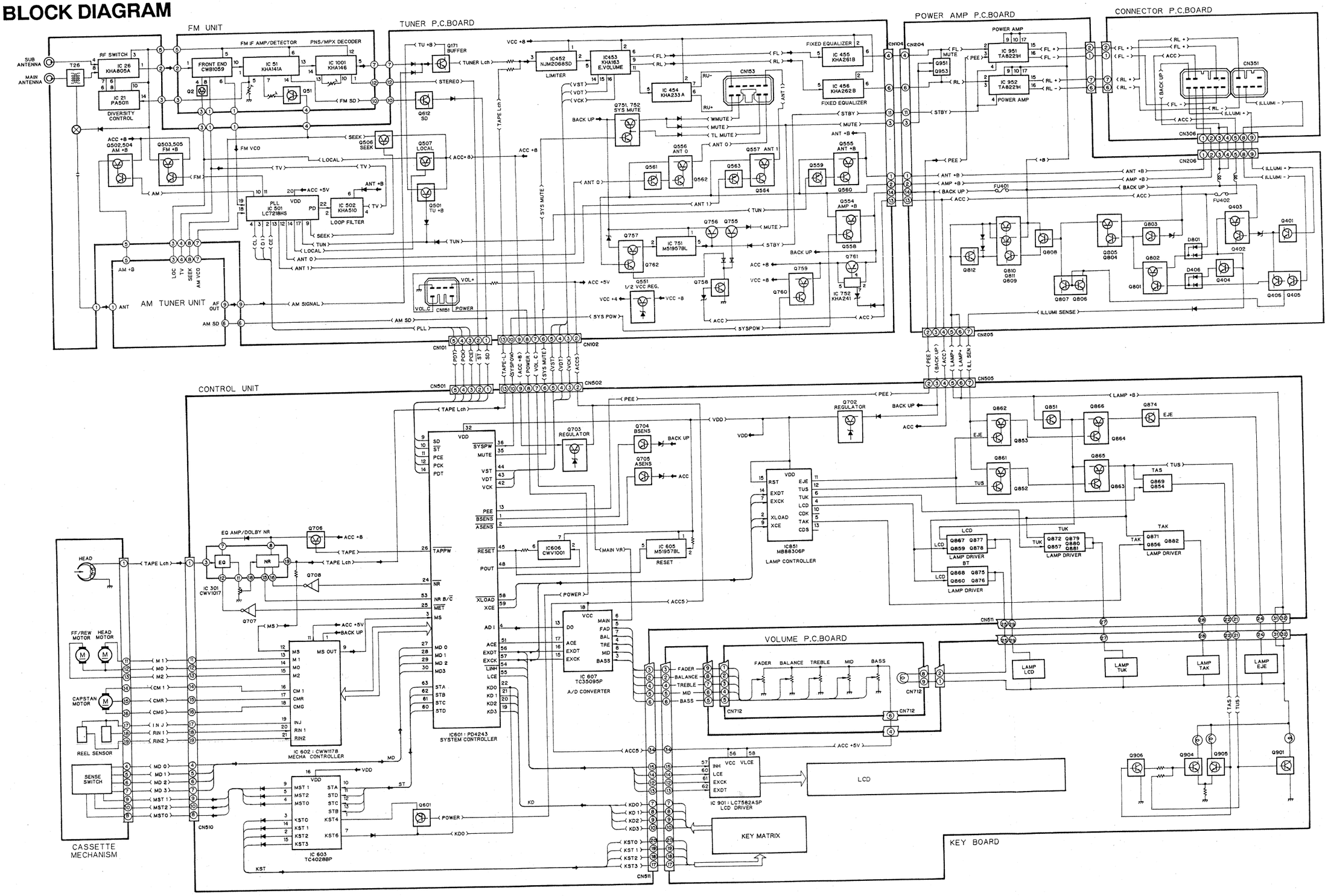


Fig. 8

3. CONNECTOR FUNCTION DESCRIPTION

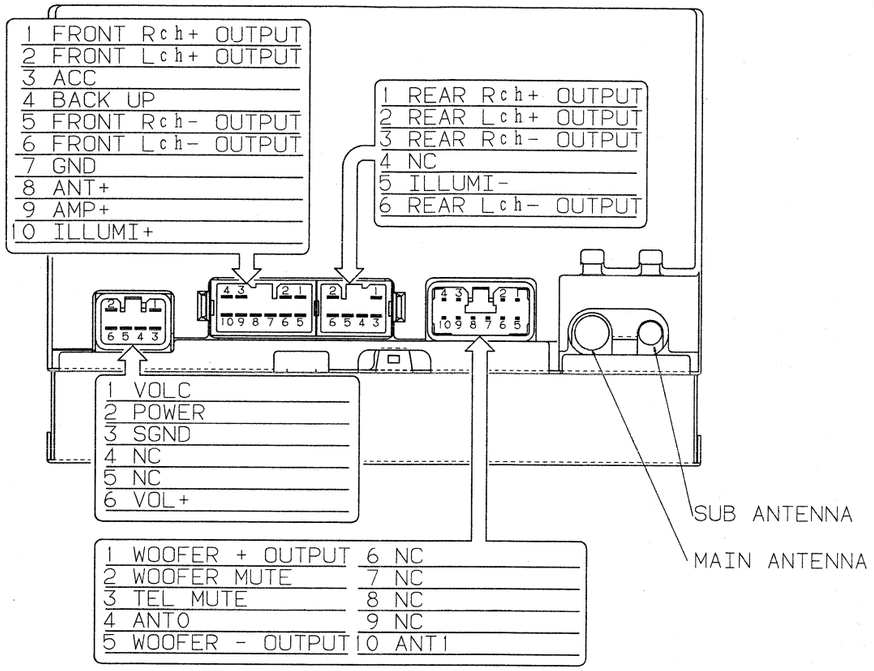


Fig. 9

4. SPECIFICATIONS

General

Power source ·····13.2V (10.5 – 16.0V allowable)
Grounding system ·····Negative type
Dimensions ·····183(W) × 125(H) × 175(D)mm
Weight ·····2.4kg

Amplifier

Maximum power output·····16W × 4
Load impedance ·····4 Ω
Tone Controls
(Bass) ····· ± 10dB (100Hz)
(Mid) ····· ± 10dB (1kHz)
(Treble) ····· ± 10dB (10kHz)

Tape player

Tape ·····Compact cassette tape
(C30 – C90)
Tape speed·····4.76cm/sec.
(+0.14cm/sec., – 0.05cm/sec.)
Wow & flutter·····Less than 0.15% (WRMS)
Crosstalk ·····More than 40dB
Stereo separation·····More than 30dB
Signal-to-noise ratio
Dolby NR OUT ·····More than 40dB
Dolby NR IN ·····More than 45dB

FM tuner

Frequency range·····87.9 – 107.9MHz
Usable sensitivity ·····15 ± 6dB μ V
Signal-to-noise ratio ·····More than 48dB
Distortion ·····Less then 1.5%
Stereo separation·····More than 25dB

AM tuner

Frequency range·····530 – 1710kHz
Usable sensitivity ·····25 ± 6dB μ V
Usable selectivity ·····More than 30dB (± 9kHz)
Signal-to-noise ratio ·····More than 40dB

5. GENERAL GUIDE

5.1 RADIO

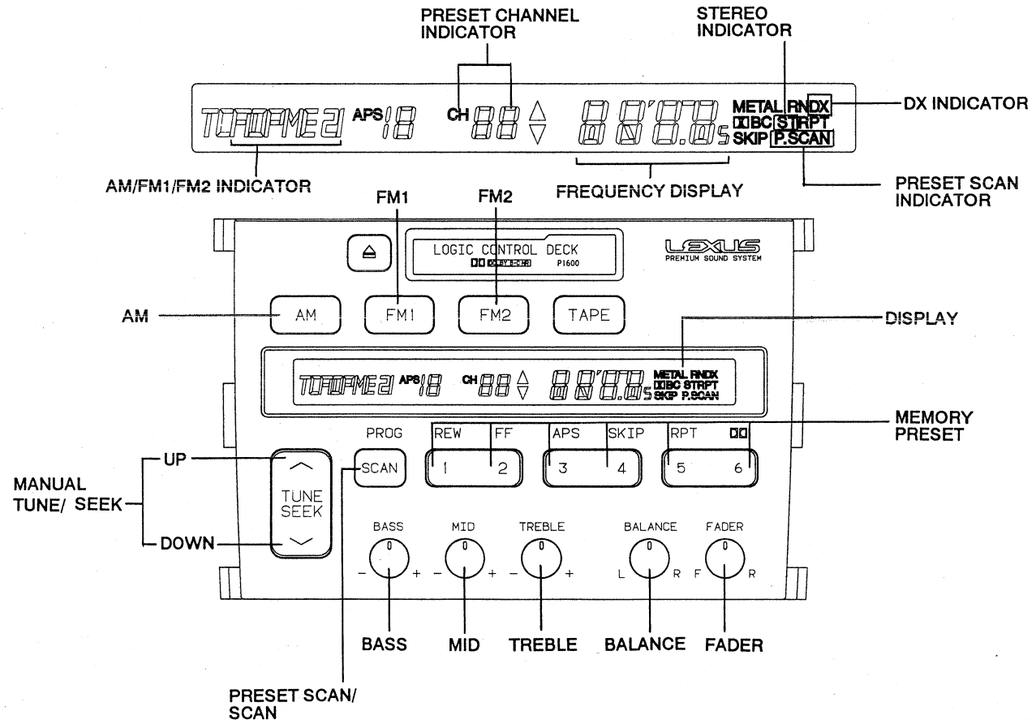


Fig. 10

● **Manual/Seek Tuning:**

When the Λ (up) side of the TUNE, SEEK button is pressed, and when the V (down) side is pressed, the frequency is decreased in the same way.
Holding the button depressed for more than 0.5 seconds starts seek tuning, which stops when a station broadcasting a sufficiently strong signal is received.
When only weak signals or no station is received, the frequency returns to the initial frequency, then the reception is changed to the DX mode.

● **Memory Preset:**

(1) Select the required band among the FM1, FM2, and AM bands.
(2) Tune to the broadcast station required to be stored in memory.
(3) Press and hold one of the Memory Preset button for more than 2 seconds.
(4) A beep tone will be heard when the tuned station is stored in the memory corresponding to the Memory Preset button pressed.
(5) Up to six stations can be memorized for each of the FM1, FM2 and AM bands.

● **Preset Scan/Scan Tuning:**

When the SCAN button is pressed, all the stations stored in the Memory Preset buttons will be received for 5 seconds in sequence.
When the SCAN button is held pressed for more than 2 seconds, the Scan Tuning mode is activated and station broadcasting strong signals will be received for 5 seconds in sequence. When the tuning returns to the frequency from which the Scan Tuning was started, the receiving mode is changed to the DX mode.
To release Preset Scan or Scan Tuning, press the SCAN button again.

5.2 TAPE

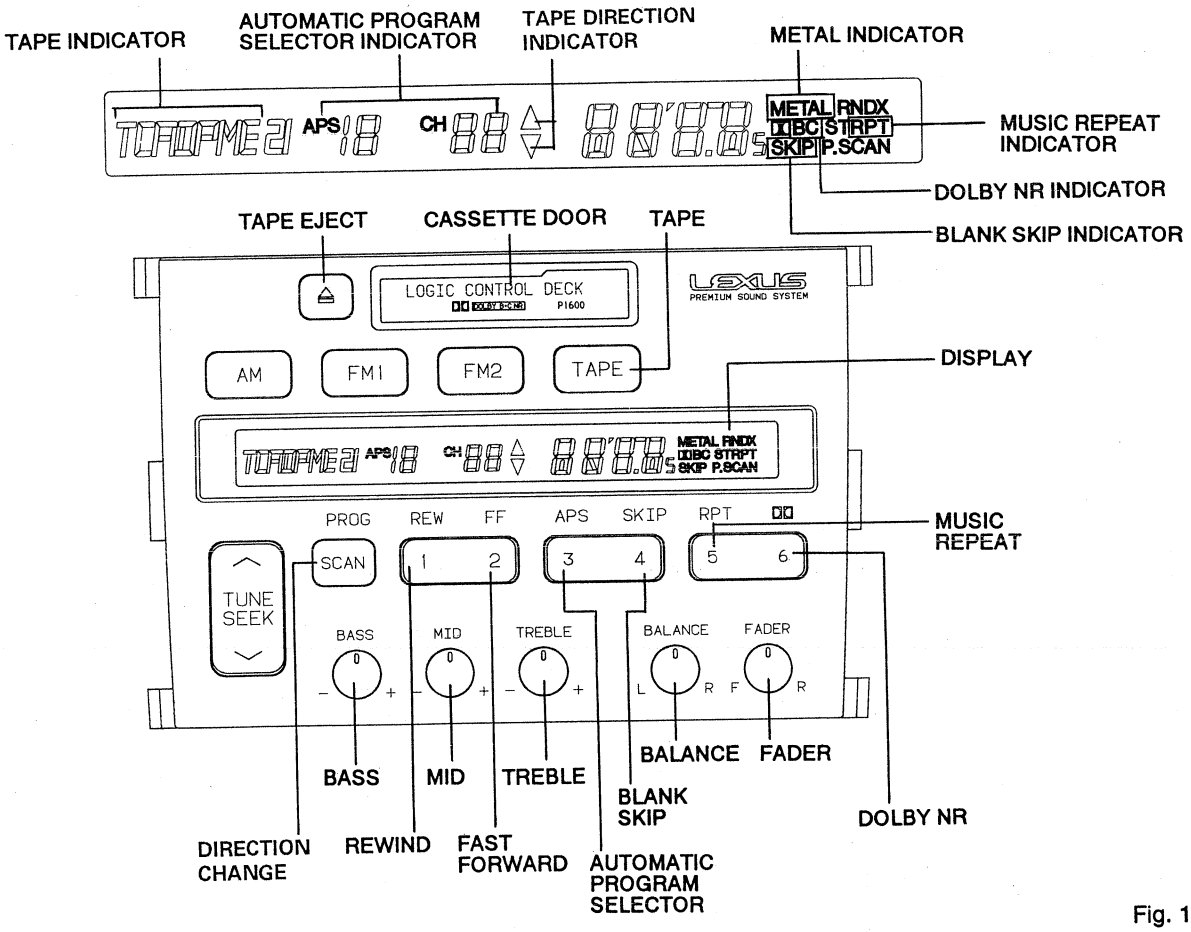


Fig. 11

● Rewind/Fast Forward:

Press the REW (or FF) button to rewind (fast-forward) the tape, and press it again to release the function.

● APS:

With the APS button, the beginning of any required tune up to 9 tunes before and after the current tune can be detected automatically. After pressing the APS button the number of times corresponding to the number of the tune to which you want to skip (for three times to select the 3rd tune), press the FF button to search in the forward direction or press the REW button to search in the reverse direction. The tape will stop at the beginning of the designated tune and play starts automatically.

(For example)

When the FF button is pressed after pressing the APS button three times, the tape is fast-forward by skipping two tunes in the forward direction, and play will start from the beginning of the 3rd tune.

● Blank Skip:

With the SKIP button pressed ON, when a blank (non-recorded) section of more than 15 seconds is detected, the tape is fast-forwarded to the beginning of the next tune. When the SKIP button is pressed again, the Blank Skip function is released.

● Music Repeat:

With the RPT button pressed ON, when the current tune is finished, the tape will be rewound to the beginning of the tune and play will restart automatically. When the RPT button is pressed again, the Music Repeat function is released.

● Dolby Noise Reduction*

Press this button when using a tape recorded with the Dolby Each press of this button shifts the Dolby NR mode as follows :

→ Dolby NR off → Dolby B NR → Dolby C NR →

** Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation.*

Dolby and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

● Ejecting Tape:

The tape can be ejected at any time by pushing the TAPE EJECT button.

6. ADJUSTMENT

Notice:
Select C1 so that total capacity of 80pF is attained from the direction of the receiver jack.
Z:Output impedance of the SSG.

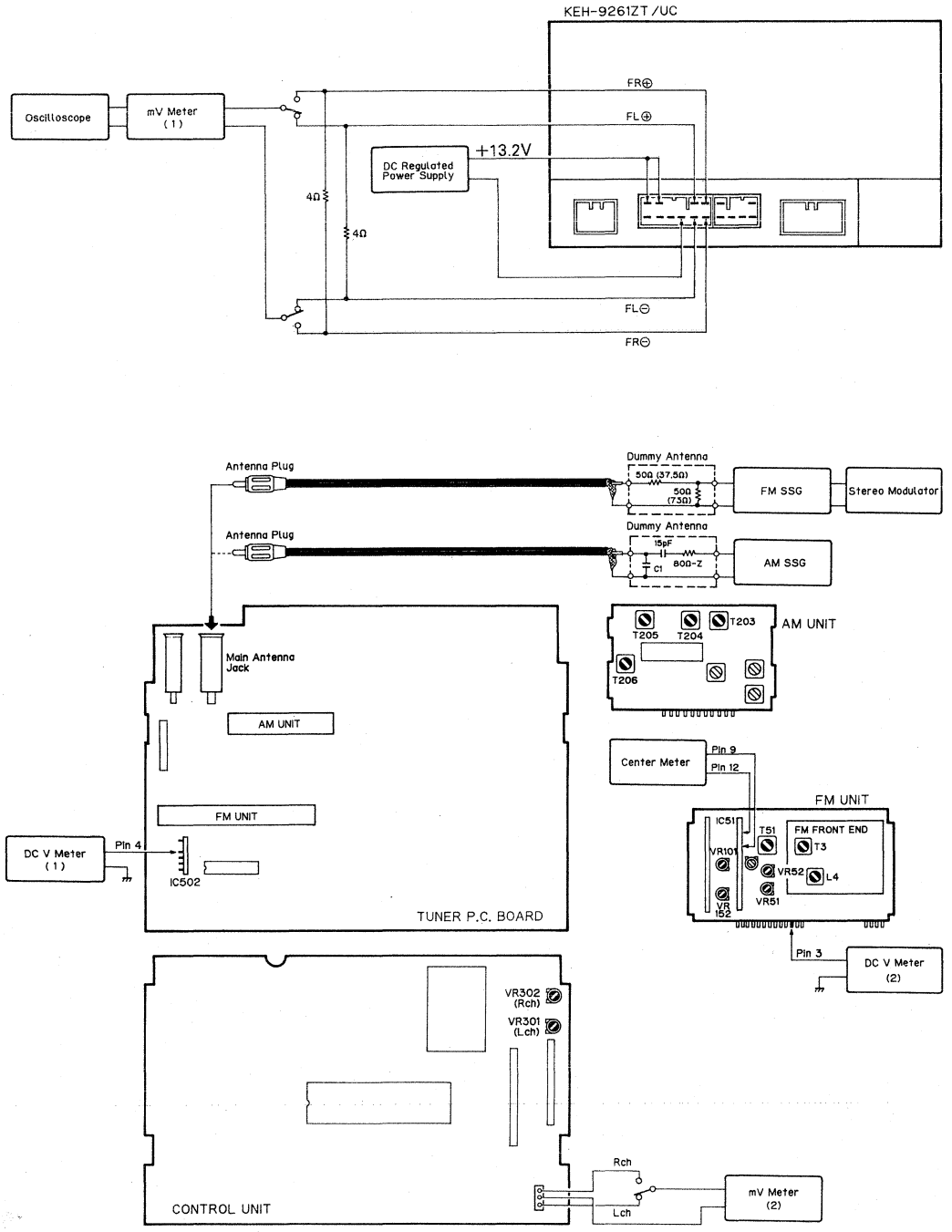


Fig. 12

DOLBY NR ADJUSTMENT

No.	Cassette Tape	Adjusting Point	Adjustment Method (Switch Position)
1	NCT-150 (400Hz, 200nwb/m)	VR301 (Lch) VR302 (Rch)	mV Meter (2) : 388mV (-6dBs) (DOLBY NR Switch: OFF)

AM ADJUSTMENT

	No.	AM SSG (400Hz, 30%)		Displayed Frequency (kHz)	Adjusting Point	Adjustment Method (Switch Position)
		Frequency (kHz)	Level (dBμV)			
Tuning Volt	1	——	——	530	——	Verify that DC V Meter (1) is 1.0±0.3V
	2	——	——	1,710	——	Verify that DC V Meter (1) is 6.0±0.5V
	3	600	25	600	T203, 204, 205, 206	mV Meter (1) : Maximum
SEEK	1	1,000	35±8	1,000		Verify that SEEK stops. SEEK stops level: AdB
	2	1,000	A+22±5	1,000		Verify that SEEK stops.

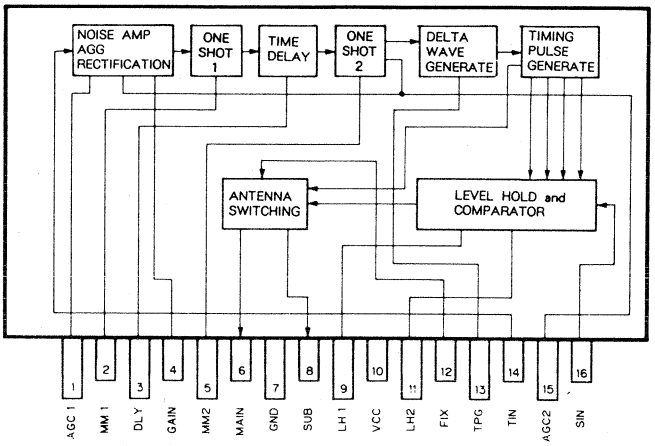
FM ADJUSTMENT

※1 Stereo MOD. : 1kHz, L+R=90% , Pilot=10%

	No.	FM SSG (400Hz, 100%)		Displayed Frequency (MHz)	Adjusting Point	Adjustment Method (Switch Position)
		Frequency (MHz)	Level (dBμV)			
IF	1	98.1	60	98.1	T51	Center Meter: 0
Front End	1	——	——	107.9	L4	DC V Meter (1) : 7.5±0.2V
	2	——	——	87.9	——	Verify that DC V Meter is more than 1.4±0.6V.
	3	98.1	15	98.1	T3	mV Meter (1) : Maximum
ARC	1	98.1	60	98.1	VR51	DC V Meter (2) : 2.5±0.1V
MPX	1	98.1 ※1	60	98.1	VR101	mV Meter (1) : Separation Maximum
	2	98.1 ※1	35	98.1	VR152	mV Meter (1) : Separation 5dB
SEEK	1	98.1	21±6	98.1	VR52	Make SEEK stop. SEEK stops level: BdB
	2	98.1	B+28±10	98.1	——	Verify that SEEK stops.

● ICs

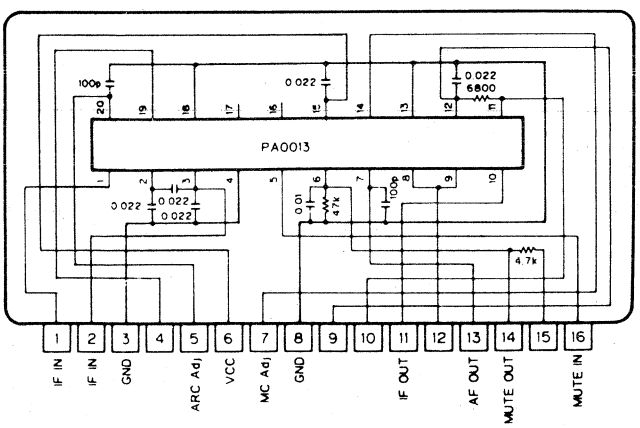
PA5011



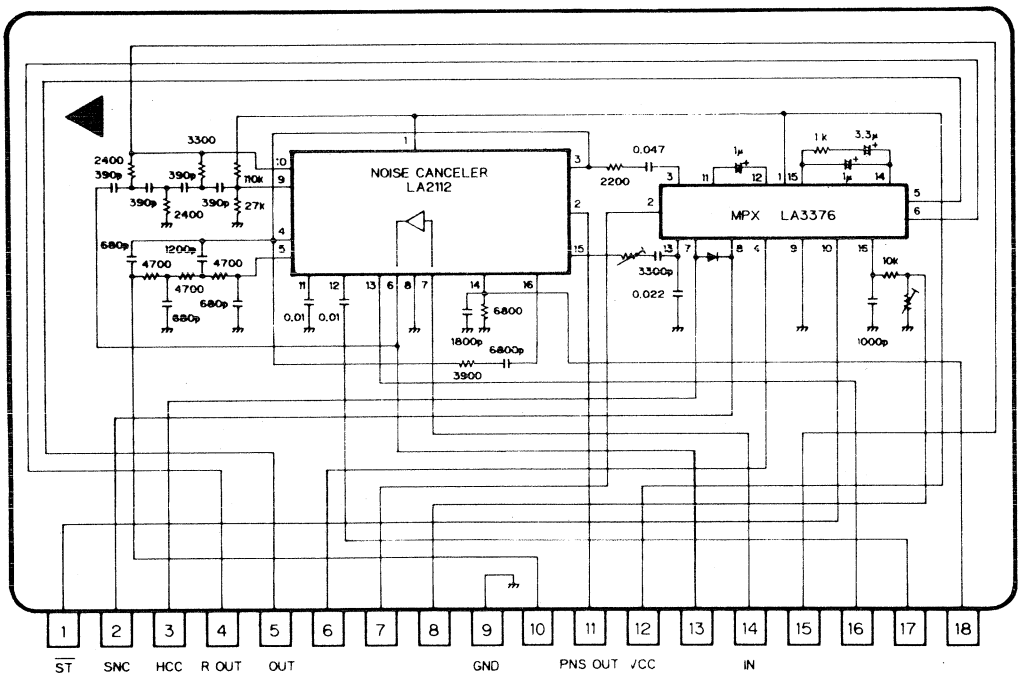
● Pin Functions (PA5011)

Pin No.	Pin Name	I/O	Functions and Operation
1	AGC1		Connected to gain control, noise amplifier AGC1 CR.
2	MM1		Connected to MMV1 output pulse width setting capacitor.
3	DLY		Connected to time delay setting capacitor.
4	GAIN		Connected to noise amplifier gain setting CR.
5	MM2		Connected to MMV2 output pulse width setting capacitor.
6	MAIN	O	"L" when the main antenna is selected.
7	GND		
8	SUB	O	"L" when the sub antenna is selected. Output phase is the opposite of that of the main antenna. Open corrector output.
9	LH1		Connected to level hold 1 capacitor.
10	VCC		
11	LH2		Connected to level hold 2 capacitor.
12	FIX	I	Auto mode when open. Fixed at main antenna when connected to GND. Fixed at sub antenna when connected to VCC.
13	TPG		Connected to timing pulse generation capacitor.
14	TIN	I	Noise amplifier input terminal. The tuner signal meter output signal passes through a capacitor and is input.
15	AGC2		Connected to noise amplifier AGC2 CR.
16	SIN	I	Level hold circuit input terminal. Tuner signal meter output signal is input.

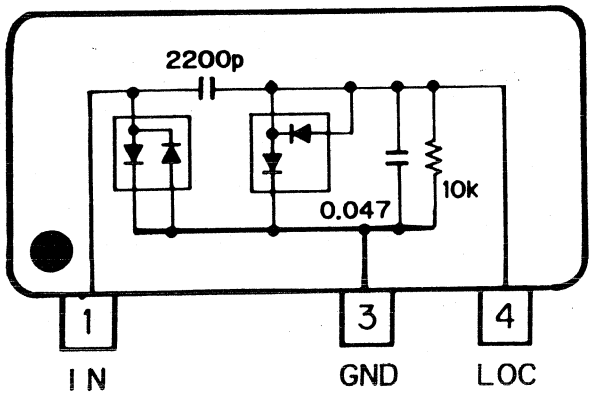
KHA141A



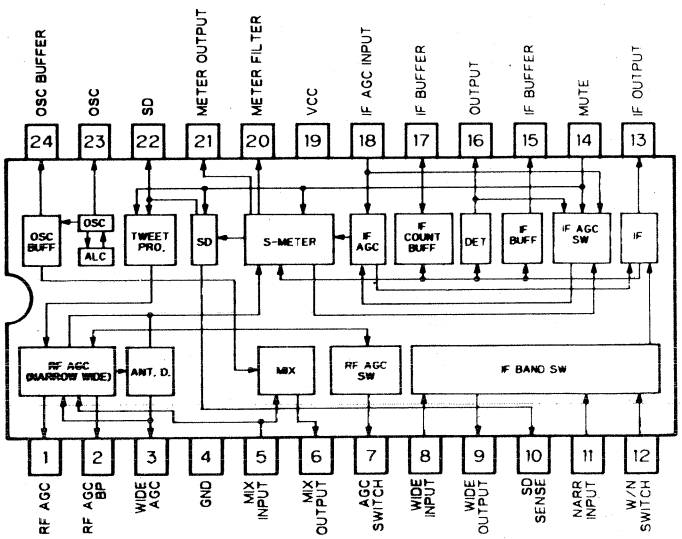
KHA146



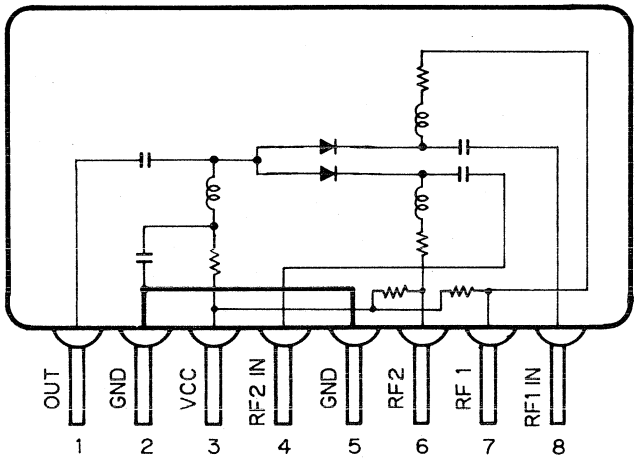
KHA507A



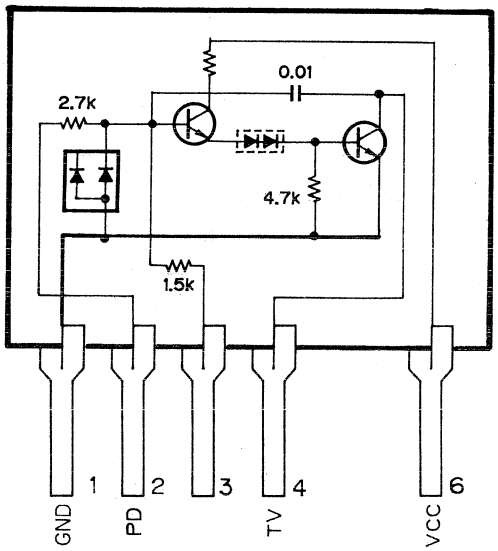
LA1136N



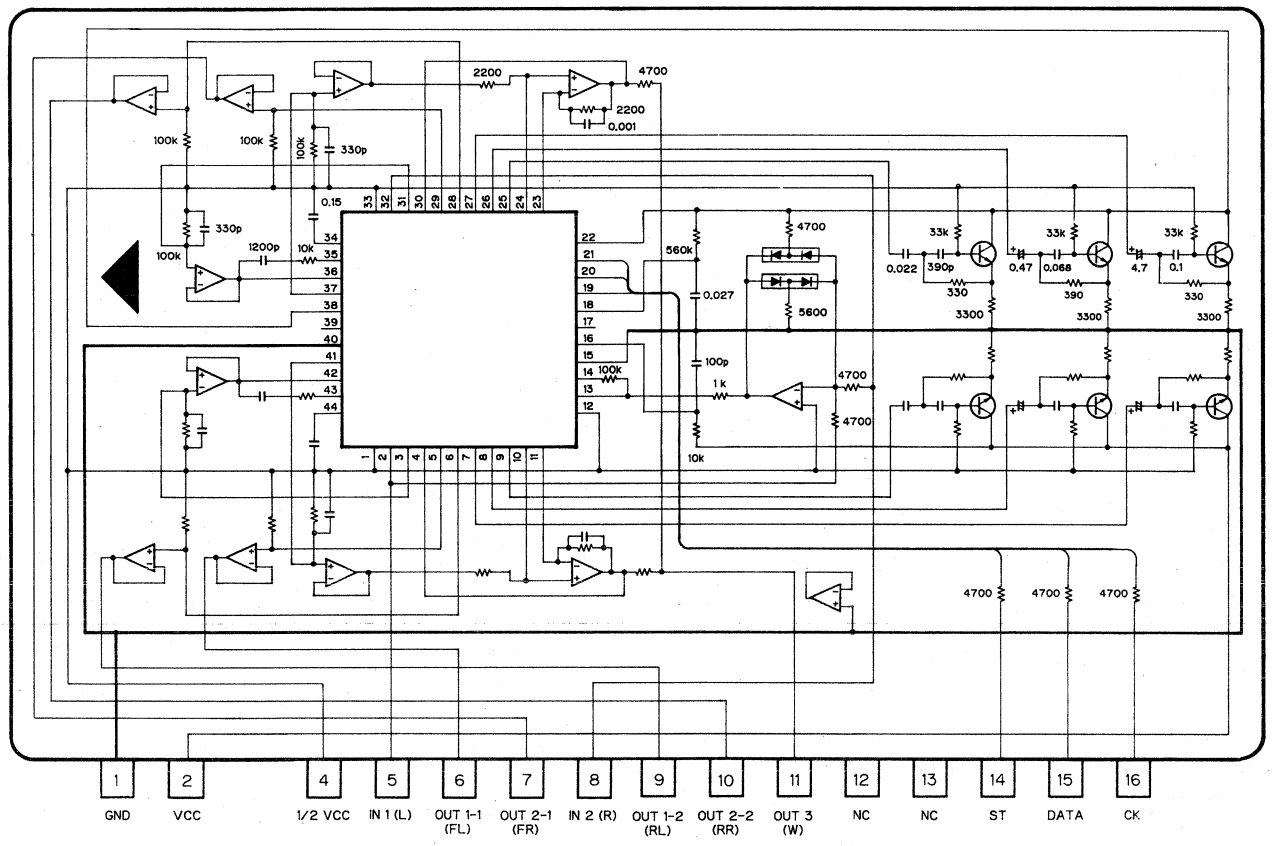
KHA805A



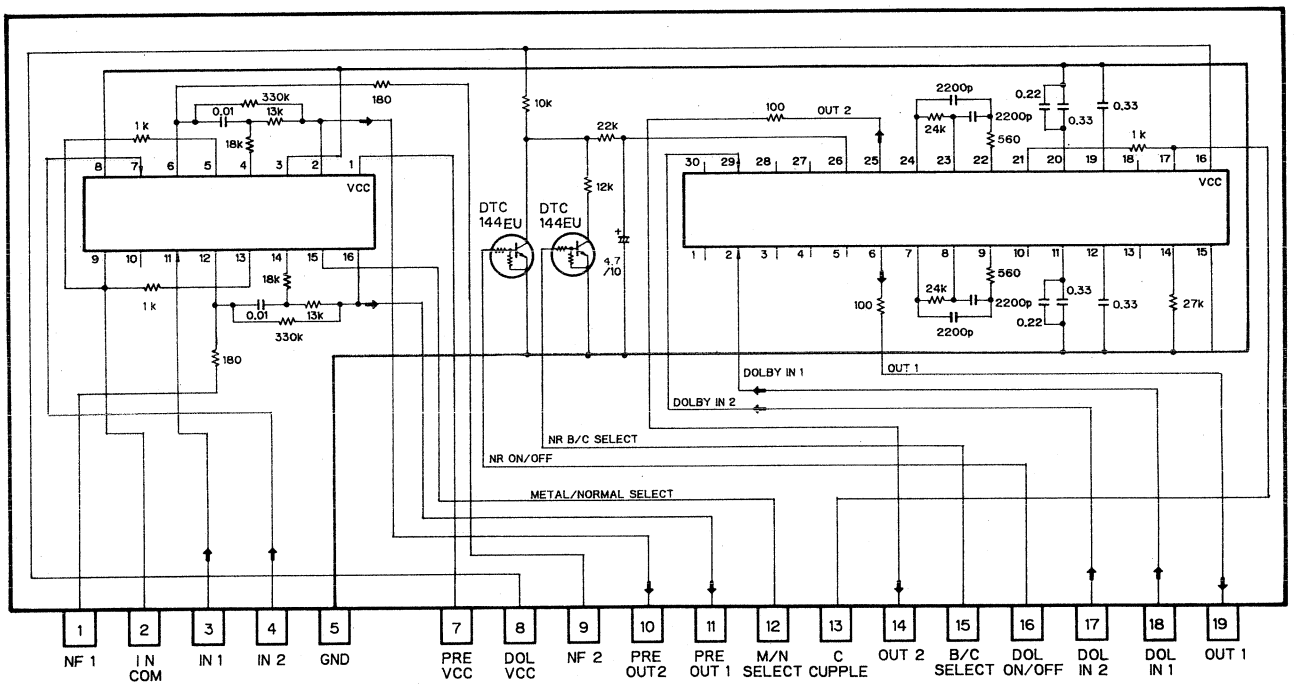
KHA510



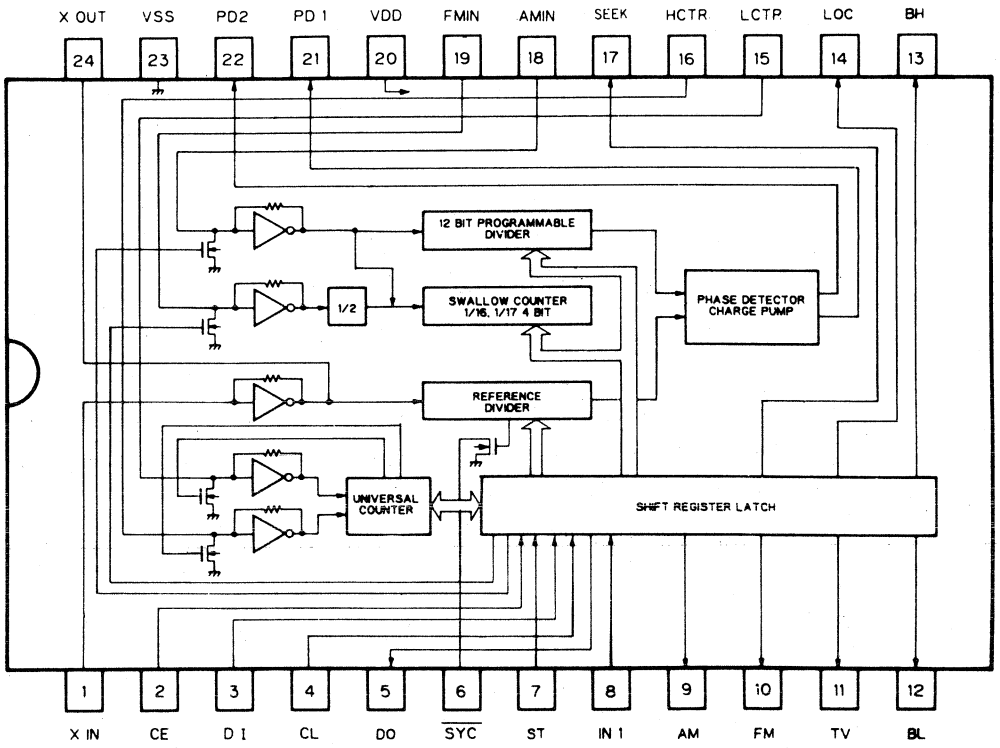
KHA163



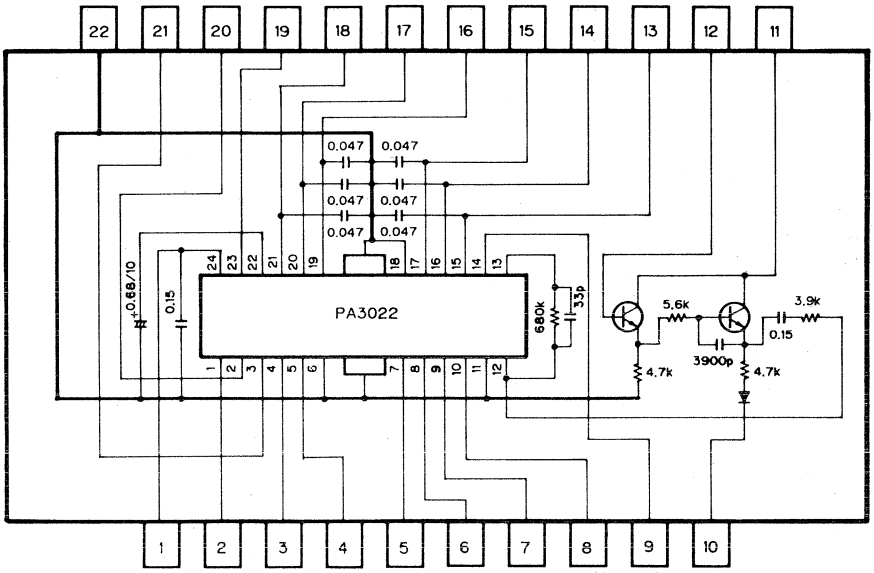
CWV1017



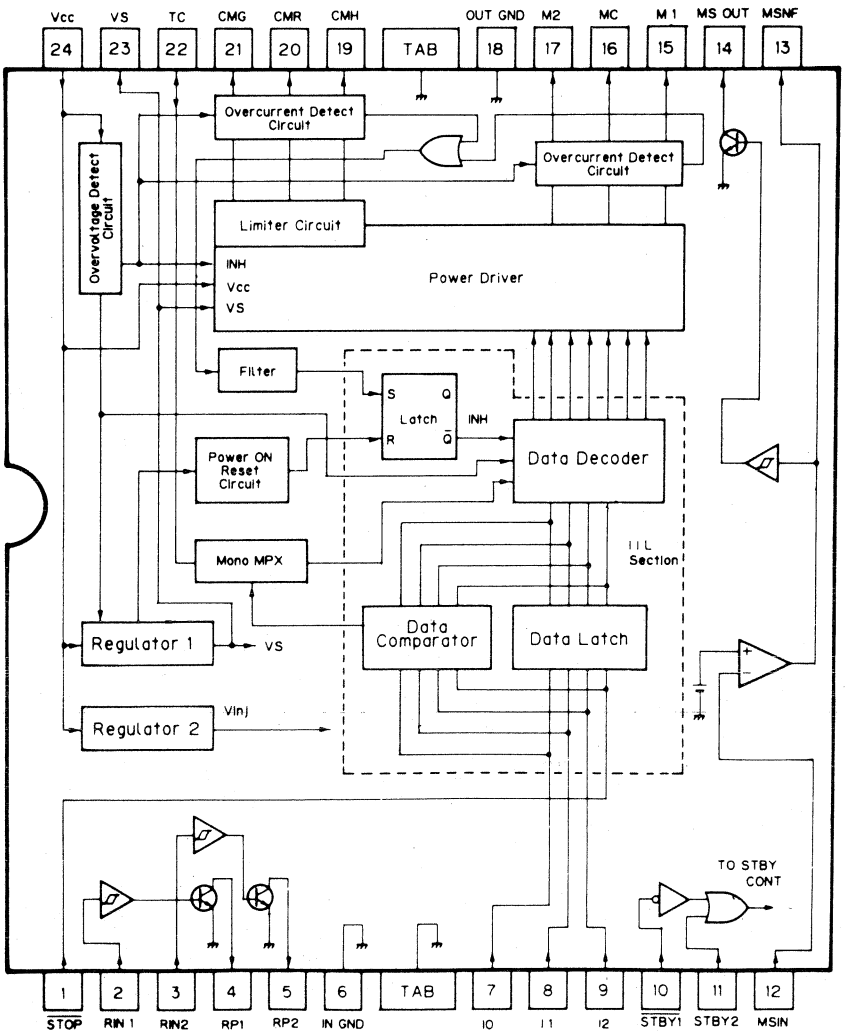
LC7218HS



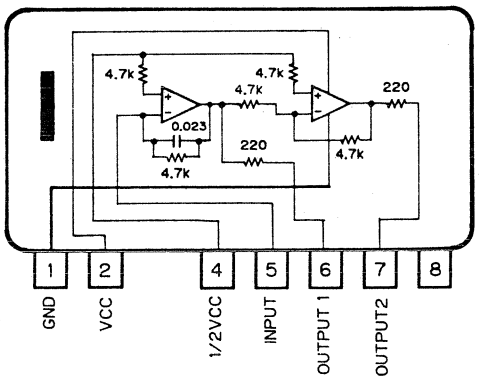
CWW1178



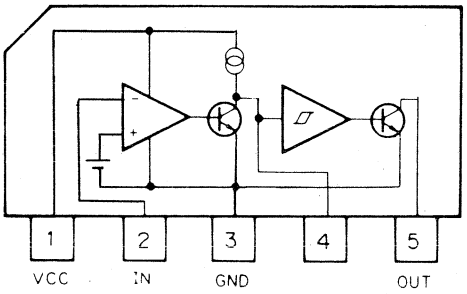
PA3022



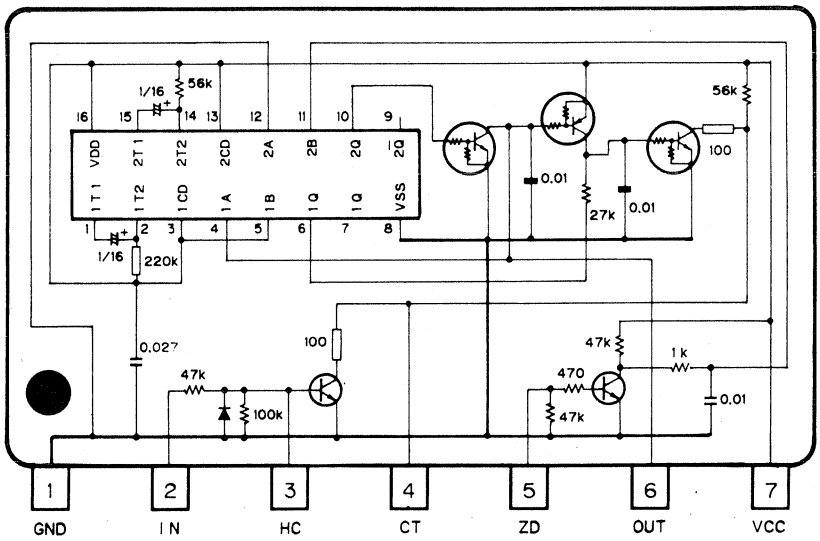
KHA233A



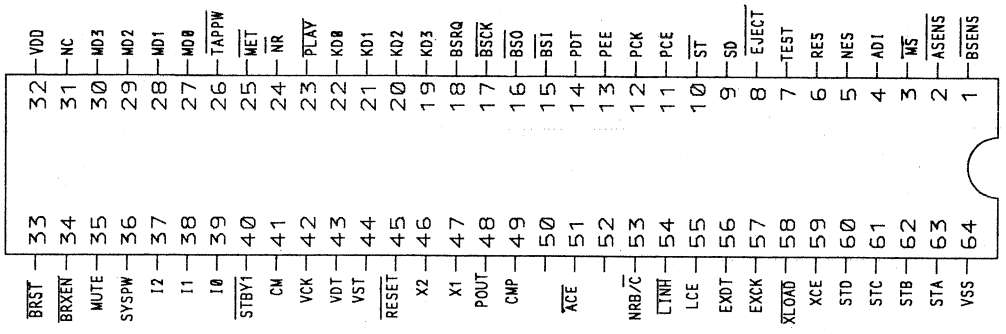
M51957BL



CWV1001



*PD4243



*IC's marked by * are MOS type.*
Be careful in handling them because they are very liable to be damaged by electrostatic induction.

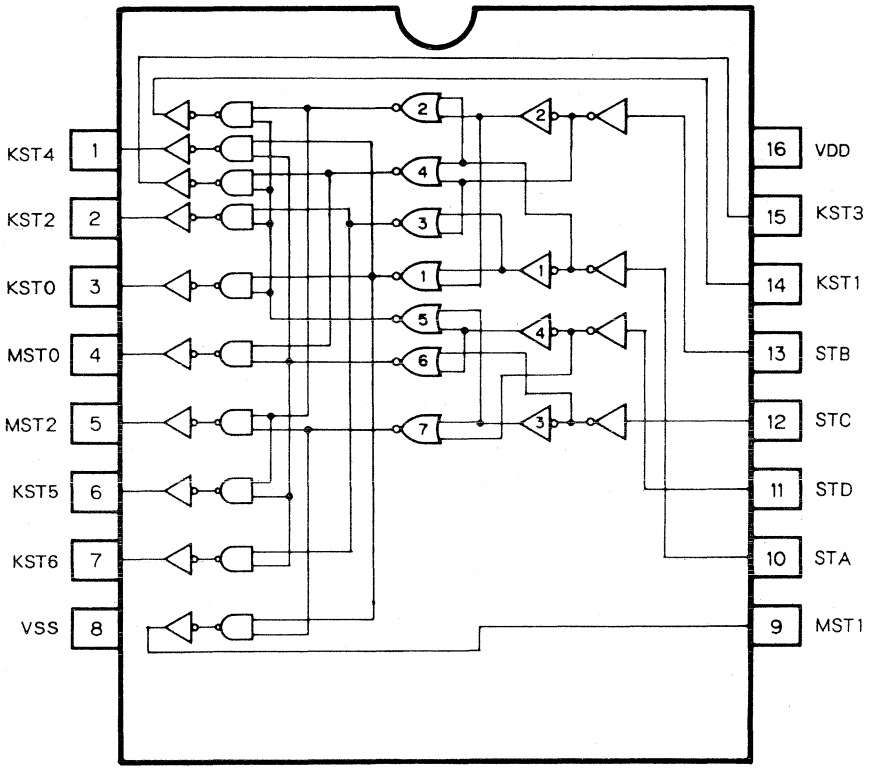
● Pin Function (PD4243)

Pin No.	Pin Name	I/O	Output Format	Function and Operation
1	$\overline{\text{BSENS}}$	Input		Back up power sense input pin
2	$\overline{\text{ASENS}}$	Input		ACC power sense input pin
3	$\overline{\text{MS}}$	Input		Tape MS signal input pin
4	ADI	Input		Data input pin from A/D converter(IC607)
5	NES	Input		Reel pulse input pin for forward side of the tape
6	RES	Input		Reel pulse input pin for reverse side of the tape
7	TEST	Input		Not used
8	$\overline{\text{EJECT}}$	Input		Eject signal input pin
9	SD	Input		SD input pin
10	$\overline{\text{ST}}$	Input		Stereo input pin
11	PCE	Output	C	PLL IC(IC501) chip enable output pin
12	PCK	Output	C	PLL IC(IC501) clock out put pin
13	PEE	Output	C	Beep tone output pin
14	PDT	Output	C	PLL IC(IC501) data out put pin
15	$\overline{\text{BSI}}$	Input		Bus communication serial data input pin
16	$\overline{\text{BSO}}$	Output	C	Bus communication serial data output pin
17	$\overline{\text{BSCK}}$	Input/ Output	C	Bus communication serial clock input/output pin
18	BSRQ	Input		Bus communication service request input pin
19 | 22	KD3 | KD0	Input		Key data input pins
23	$\overline{\text{PLAY}}$	Output	N	Tape MS filter select output pin
24	$\overline{\text{NR}}$	Output	N	Dolby NR ON/OFF output pin
25	$\overline{\text{MET}}$	Output	N	Tape METAL ON/OFF output pin
26	$\overline{\text{TAPPW}}$	Output	N	Tape power ON/OFF output pin
27 | 30	MD0 | MD3	Input		Mechanism switch sense input pins
31	NC			
32	VDD			Device power supply terminal
33	$\overline{\text{BRST}}$	Output	C	Bus communication reset output pin
34	$\overline{\text{BRXEN}}$	Input/ Output	C	Bus communication reception enable input pin

Pin No.	Pin Name	I/O	Output Format	Function and Operation
35	MUTE	Output	C	System mute output pin
36	SYSPW	Output	C	System power ON/OFF control output pin
37 38 39	I2 I1 I0	Output	C	Data output pins for mechanism driver(IC602)
40	$\overline{\text{STBYI}}$	Output	C	Standby output pin for mechanism driver(IC602)
41	CM	Output	C	Capstan motor ON/OFF control output pin
42	VCK	Output	C	Clock output pin for electronic volume(IC453)
43	VDT	Output	C	Data output pin for electronic volume(IC453)
44	VST	Output	C	Strobe pulse output pin for electronic volume(IC453)
45	$\overline{\text{RESET}}$	Input		Reset input pin
46 47	X2 X1			Crystal oscillator connection pins
48	POUT	Output	C	Pulse output pin for watch dog timer(IC606)
49	CMP	Output	C	CD compression ON/OFF output pin
50	ANTILED	Output	C	Not used
51	$\overline{\text{ACE}}$	Output	C	Chip enable output pin for A/D converter(IC607)
52	ECE	Output	C	Not used
53	NRB/$\overline{\text{C}}$	Output	C	Dolby NR B/C selector output pin
54	$\overline{\text{LINH}}$	Output	C	Inhibit output pin for LCD driver(IC901)
55	LCE	Output	C	Chip enable output pin for LCD driver(IC901)
56	EXDT	Output	C	Data output pin for external IC
57	EXCK	Output	C	Clock output pin for external IC
58	$\overline{\text{XLOAD}}$	Output	C	Data load output pin for expander(IC851)
59	XCE	Output	C	Chip enable pin for expander(IC851)
60 | 63	STD | STA	Output	C	Mechanism switch, strobe output pins
64	VSS			GND terminal

Output format	Meaning
N	Nchannel open drain
C	C-MOS

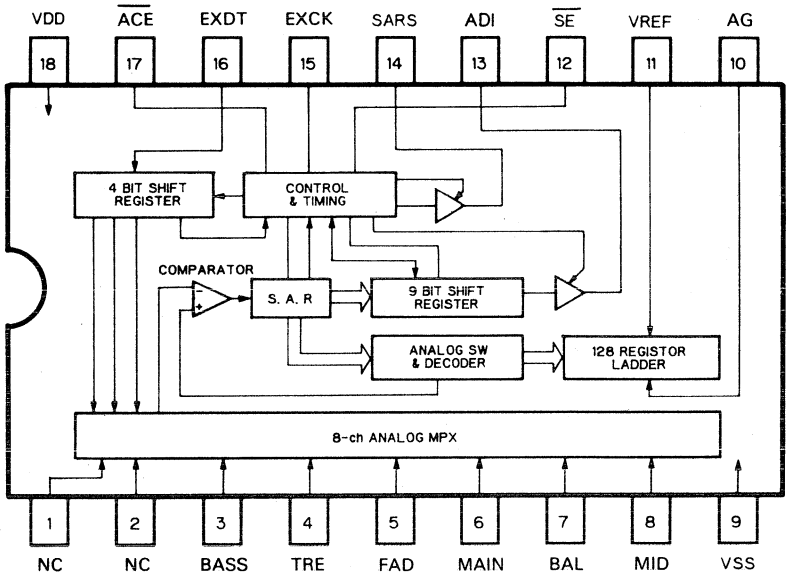
TC4028BP



● Pin Function (TC4028BP)

Pin No.	Pin Name	I/O	Output Format	Function and Operation
1	KST4	Output	C	Key matrix strobe output pins
2	KST2			
3	KST0			
6	KST5			
7	KST6			
14	KST1			
15	KST3			
8	VSS			GND terminal
4	MST0	Output	C	Mechanism switch, strobe output pins
5	MST2			
9	MST1			
10	STA	Input		Data input pins
11	STD			
12	STC			
13	STB			
16	VDD			Device power supply terminal

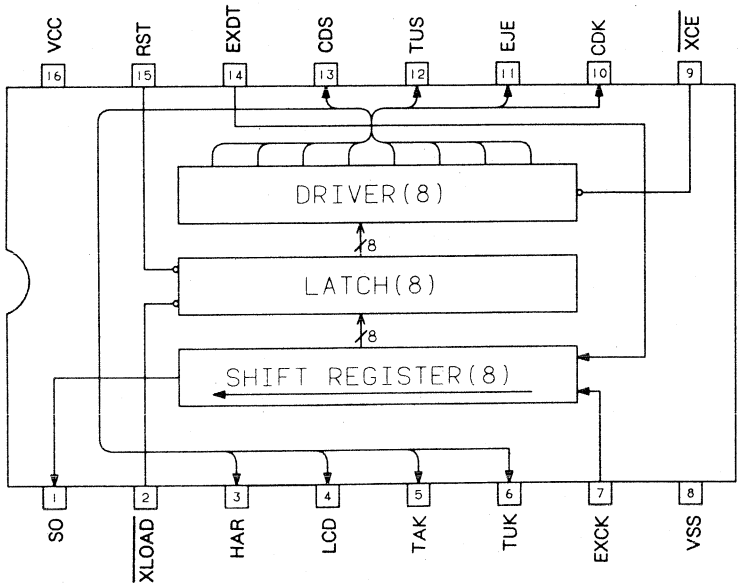
TC35095P



● Pin Function (TC35095P)

Pin No.	Pin Name	I/O	Output Format	Function and Operation
1	N. C			Not used
2	N. C			Not used
3	BASS	Input		BASS level input terminal
4	TRE	Input		TREBLE level input terminal
5	FAD	Input		FADER level input terminal
6	MAIN	Input		VOLUME level input terminal
7	BAL	Input		BALANCE level input terminal
8	MID	Input		MIDDLE level input terminal
9	VSS			GND terminal
10	AG			Analog GND terminal
11	VREF	Input		Reference voltage input pin
12	$\overline{SE}$	Input		Not used
13	ADI	Output	C	Serial data output pin
14	SARS	Output	C	Not used
15	EXCK	Input		Serial clock input pin
16	EXDT	Input		Data input pin
17	$\overline{ACE}$	Input		Chip enable input pin
18	VDD			Device power supply terminal

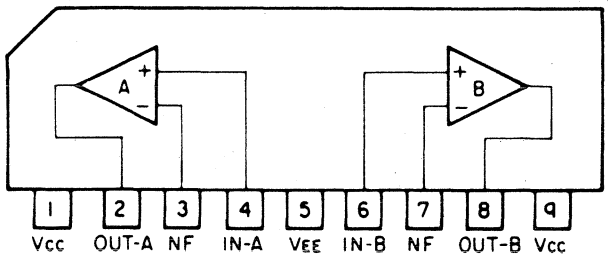
MB88306P



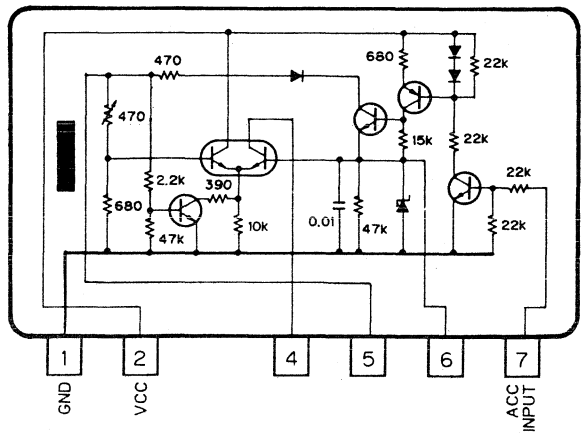
● Pin Function (MB88306P)

Pin No.	Pin Name	I/O	Output Format	Function and Operation
1	SO	Output	C	Serial data output pin
2	$\overline{\text{XLOAD}}$	Input		Data load input pin
3	HAR	Output	C	Not used
4	LCD	Output	C	Lamp of LCD ON/OFF control output pin
5	TAK	Output	C	Lamp of tape key ON/OFF control output pin
6	TUK	Output	C	Lamp of tuner key ON/OFF control output pin
7	EXCK	Input		Clock input pin
8	VSS			GND terminal
9	$\overline{\text{XCE}}$	Input		Chip enable input pin
10	CDK	Output	C	Lamp of CD key ON/OFF control output pin
11	EJE	Output	C	
12	TUS	Output	C	Lamp of tuner system ON/OFF control output pin
13	CDS	Output	C	Lamp of CD system ON/OFF control output pin
14	EXDT	Input	C	Serial data output pin
15	RST	Input		Reset input pin
16	VDD			Device power supply terminal

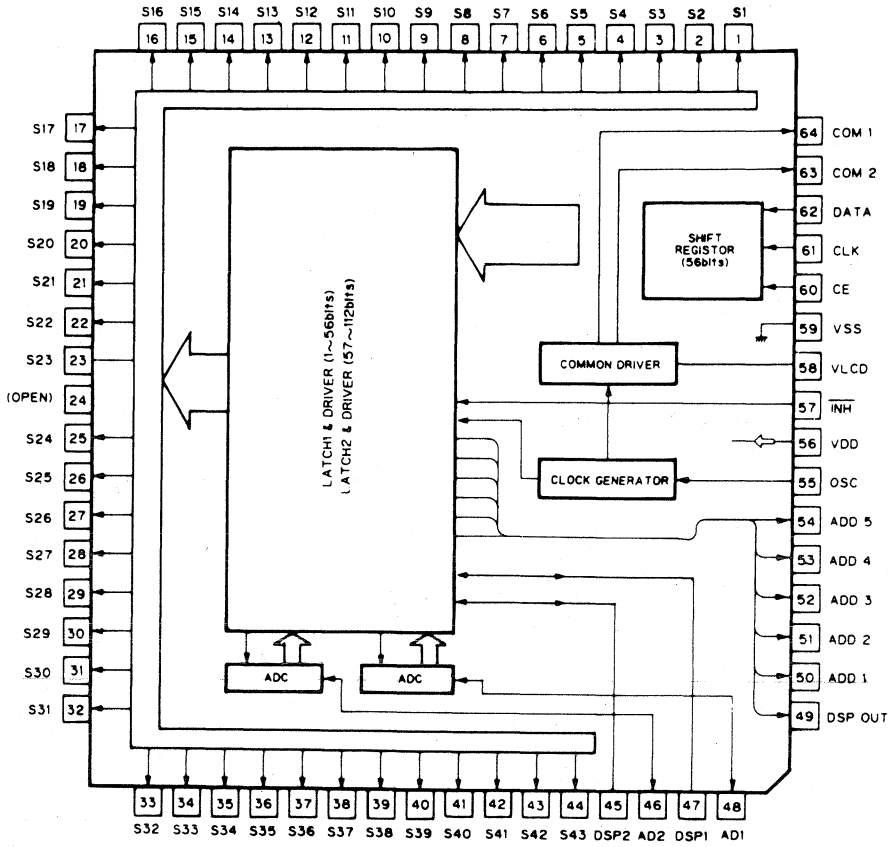
NJM2068SD



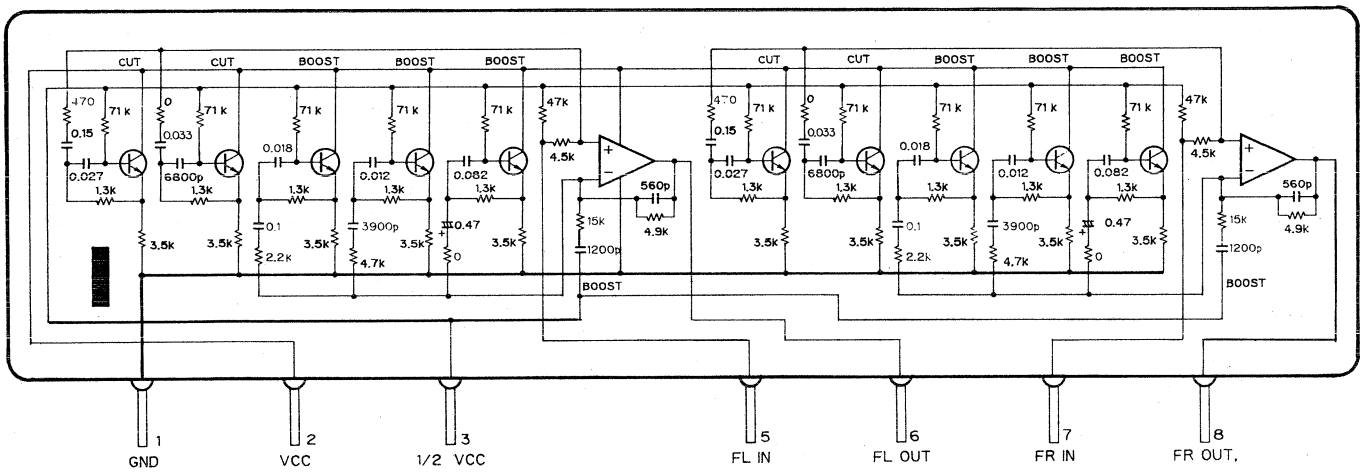
KHA241



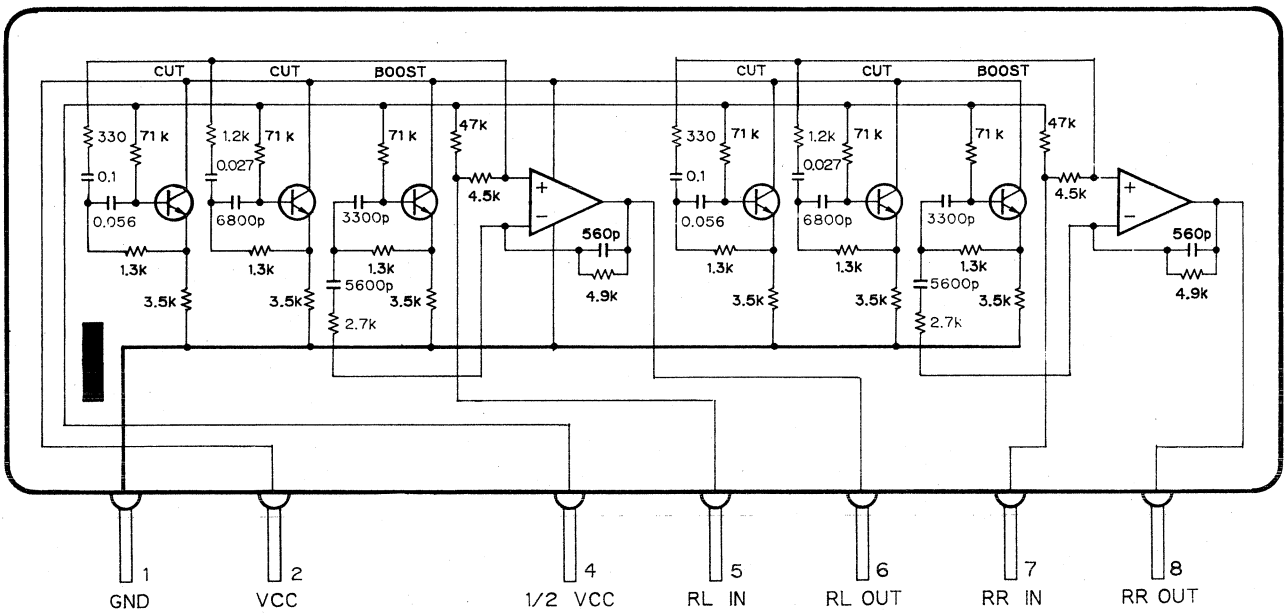
LC7582ASP



KHA261B



KHA262B



7. CONNECTION DIAGRAM

CONTROL UNIT

														Q702	Q879	Q880	Q881	Q882	
													Q869	Q866	Q875	Q876	Q877	Q878	Q867
		Q708										Q601		Q864	Q874				Q871
		Q707				IC606	IC607						Q865	Q863		Q868	Q872	Q855	Q860
IC. Q	IC301	Q706	IC602			IC601	Q704	Q705	IC605	Q851	Q703	IC603	Q862	Q861	Q852	Q859	Q857	Q853	Q856
ADJ.	VR302																		
	VR301																		

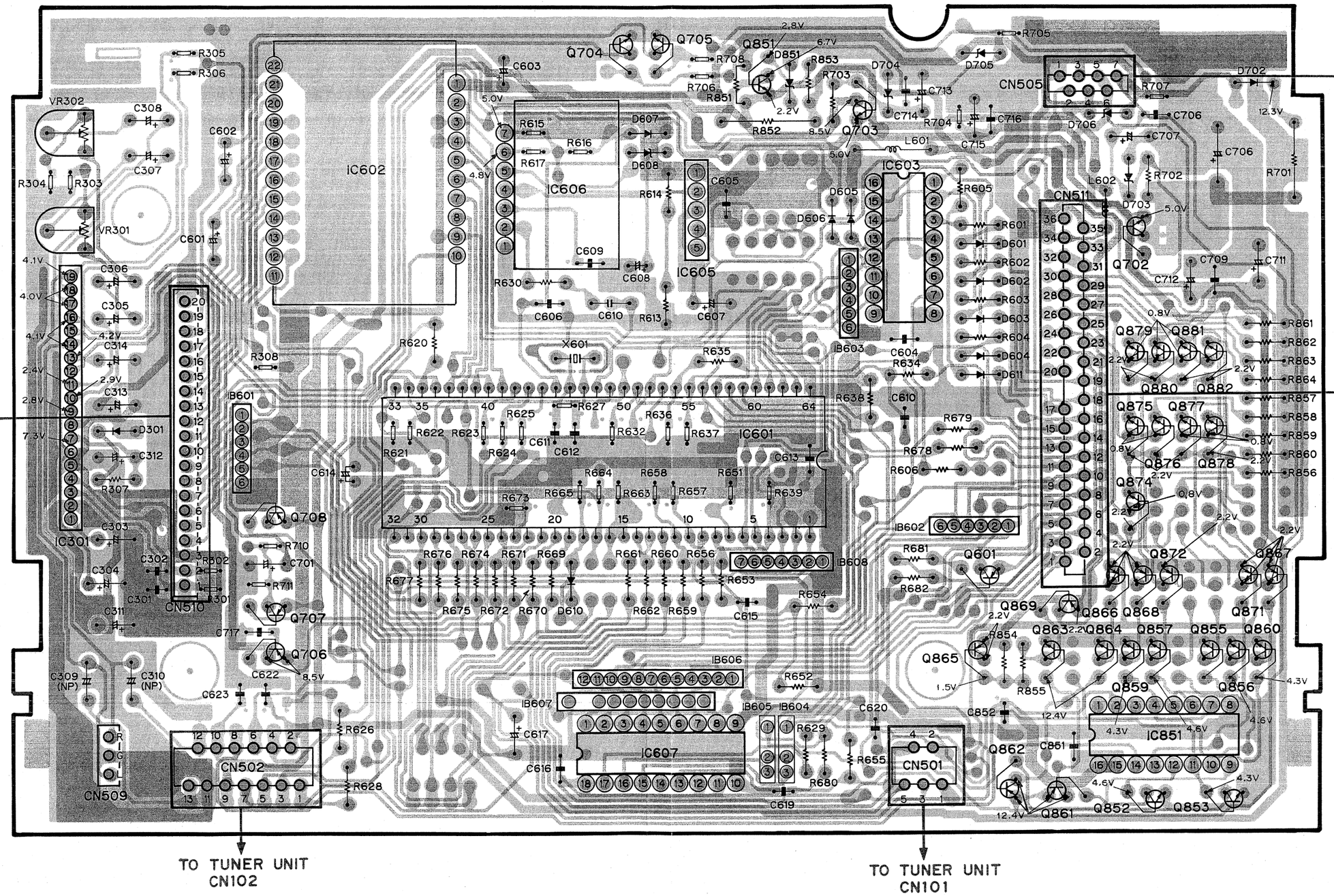
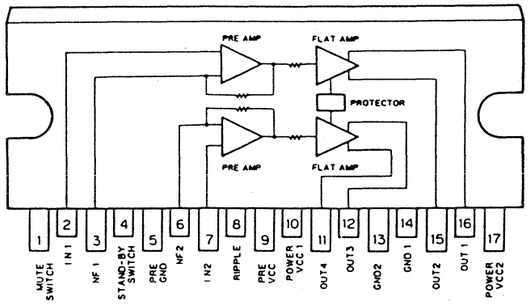


Fig. 15

TA8221H



● LCD (CAW1080)

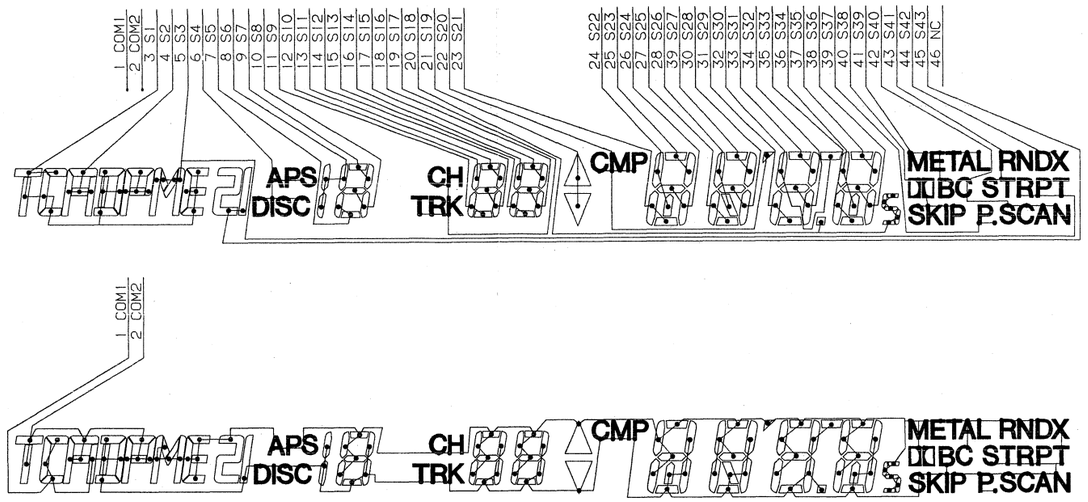


Fig. 13

● FM Front End (CWB1059)

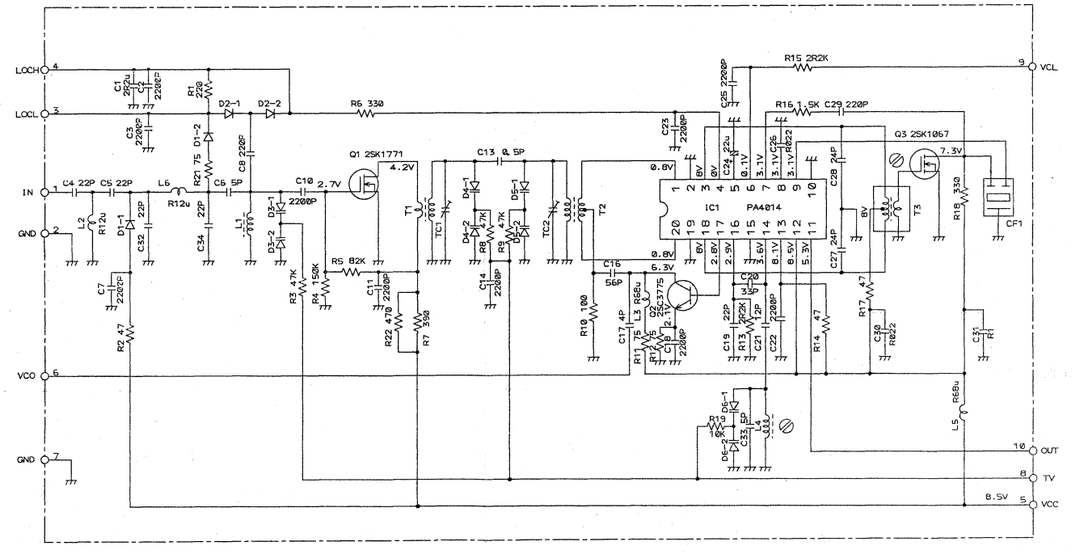
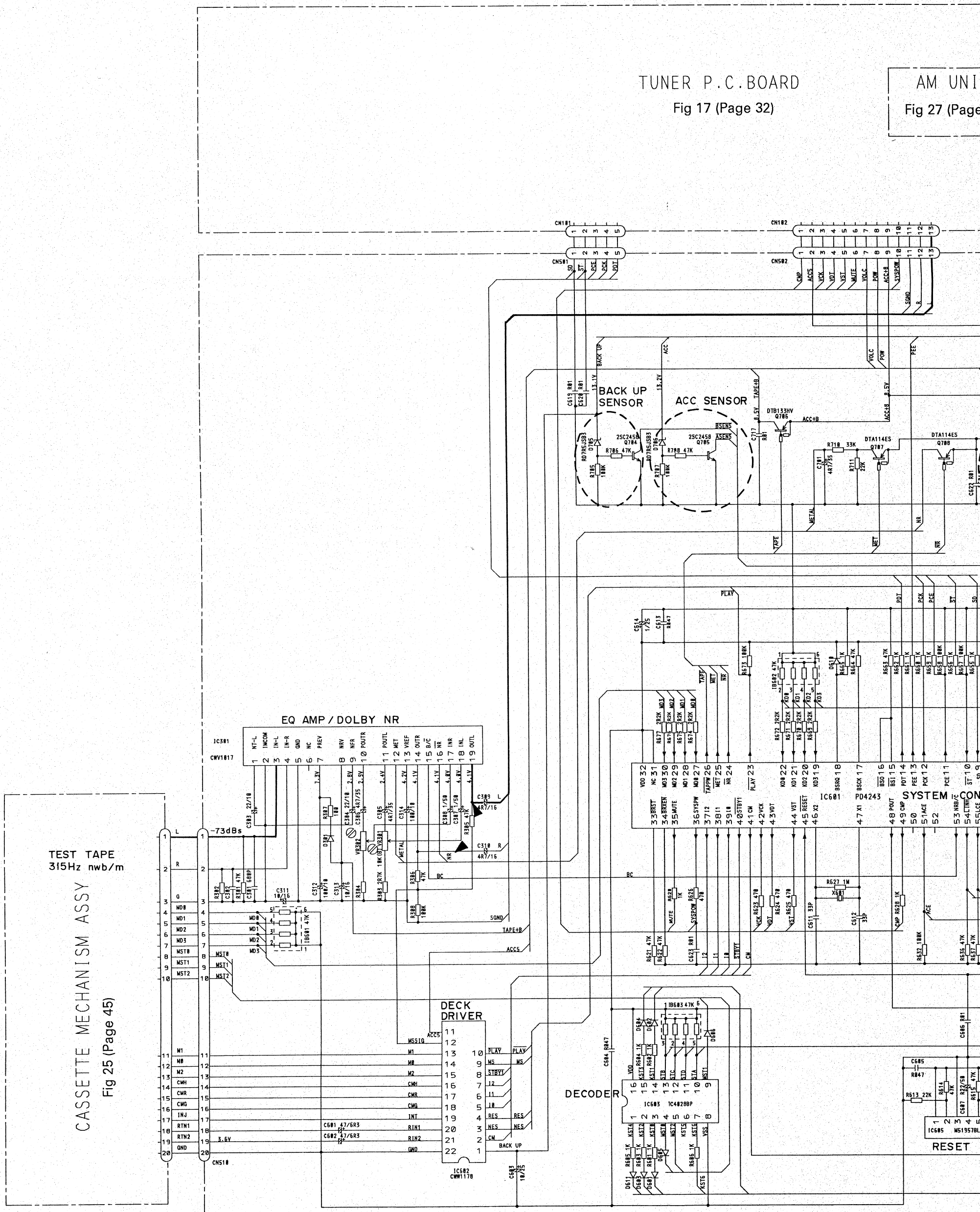


Fig. 14

8. SCHEMATIC CIRCUIT DIAGRAM



AM UNIT
Fig 27 (Page 47)

FM UNIT
Fig 23 (Page 44)

POWER AMP P.C.BOARD
Fig 19 (Page 37)

CONNECTO
P.C.BOAR
Fig 19 (Page

KEY BOAR
Fig 22 (Page

CONTROL UNIT

SYSTEM CONTROL

ACC 5 REGULATOR

VDD REGULATOR

LAMP CONTROLLER

A/D CONVERTER

RESET

WATCH DOG TIMER

VOLUME
P.C.BOA
Fig 22 (Pag

NOTE :

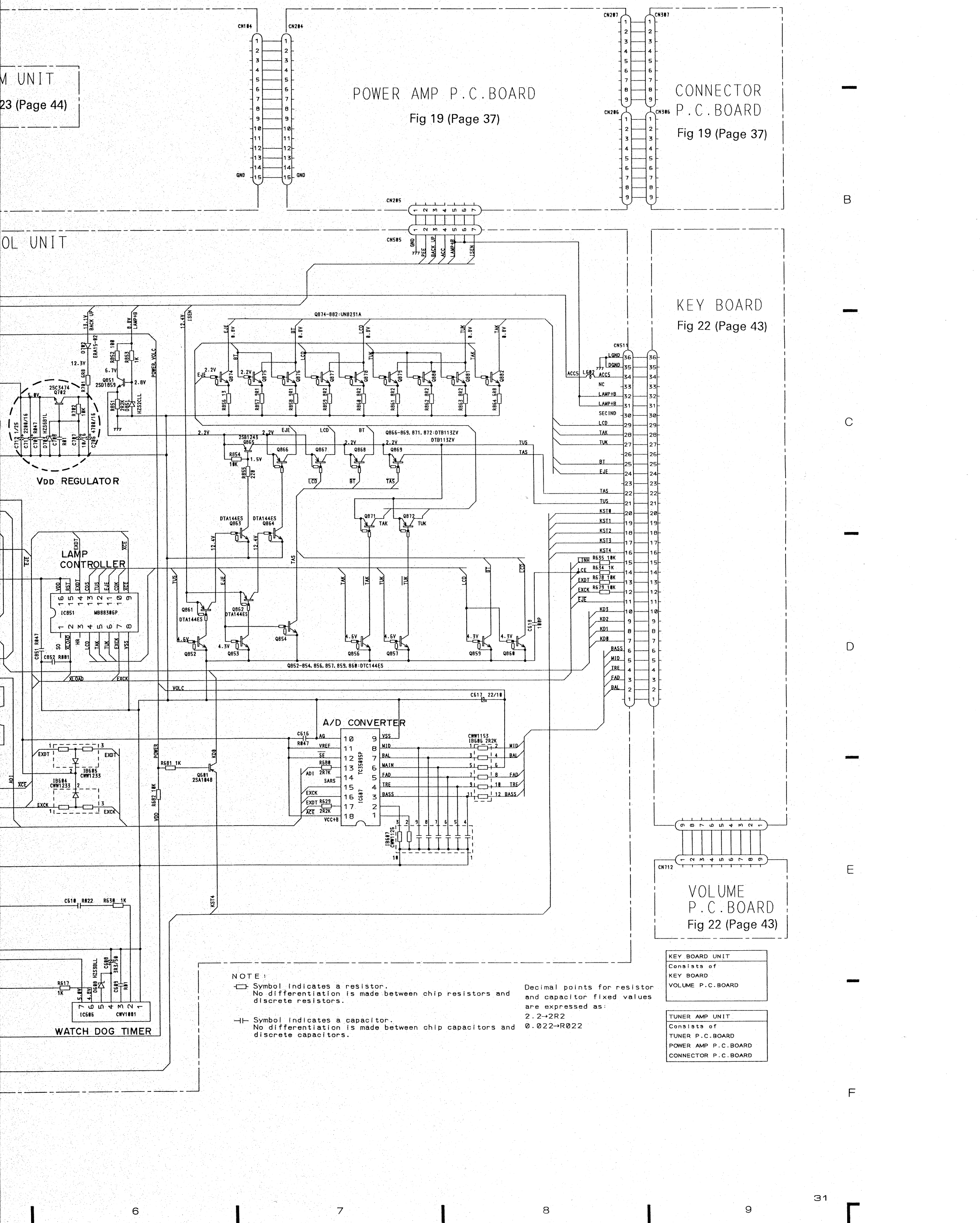
Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.

Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.

Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022

KEY BOARD UNIT
Consists of
KEY BOARD
VOLUME P.C.BOARD

TUNER AMP UNIT
Consists of
TUNER P.C.BOARD
POWER AMP P.C.BOARD
CONNECTOR P.C.BOARD



NOTE :

⊏⊐ Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.

⊣⊢ Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.

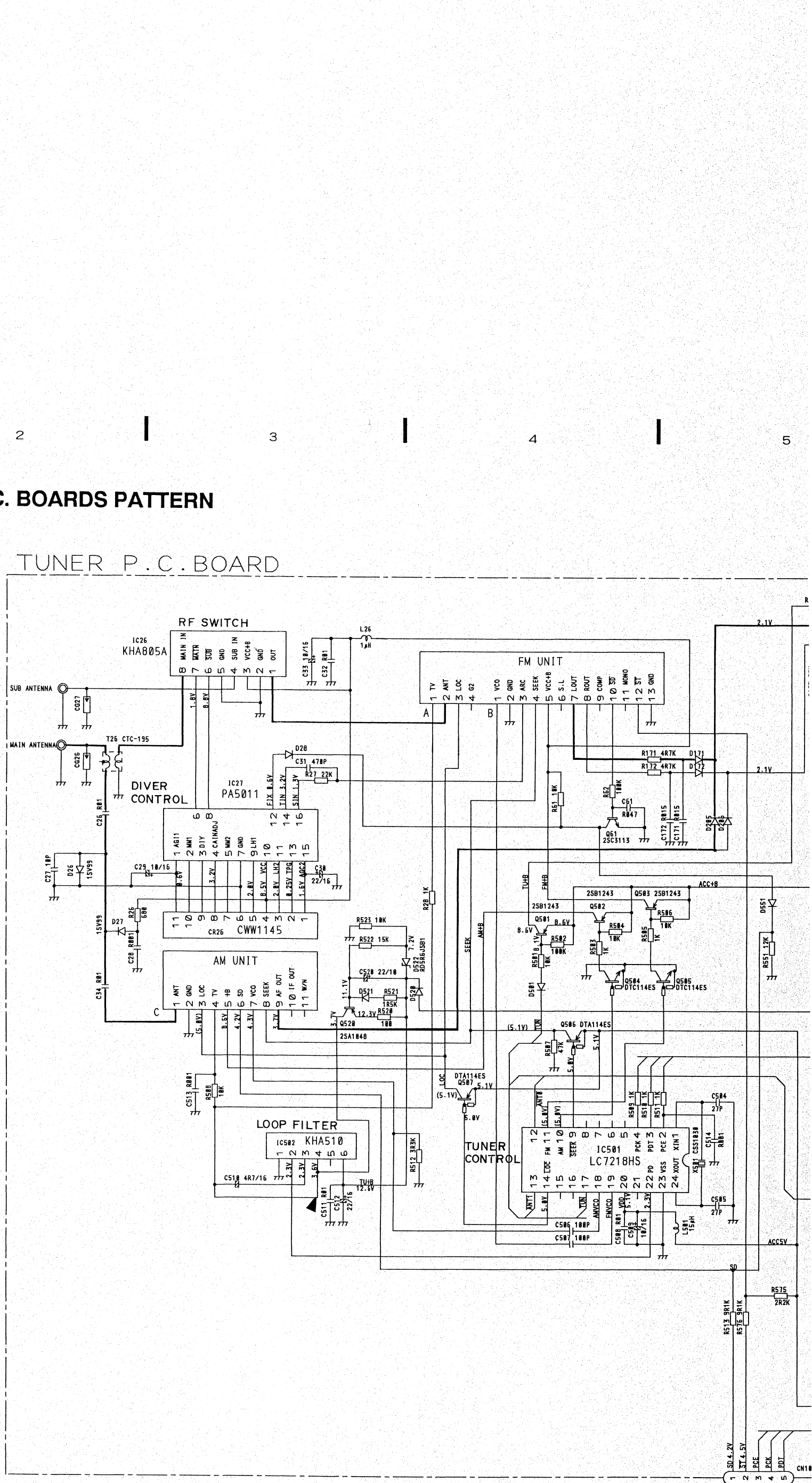
Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022

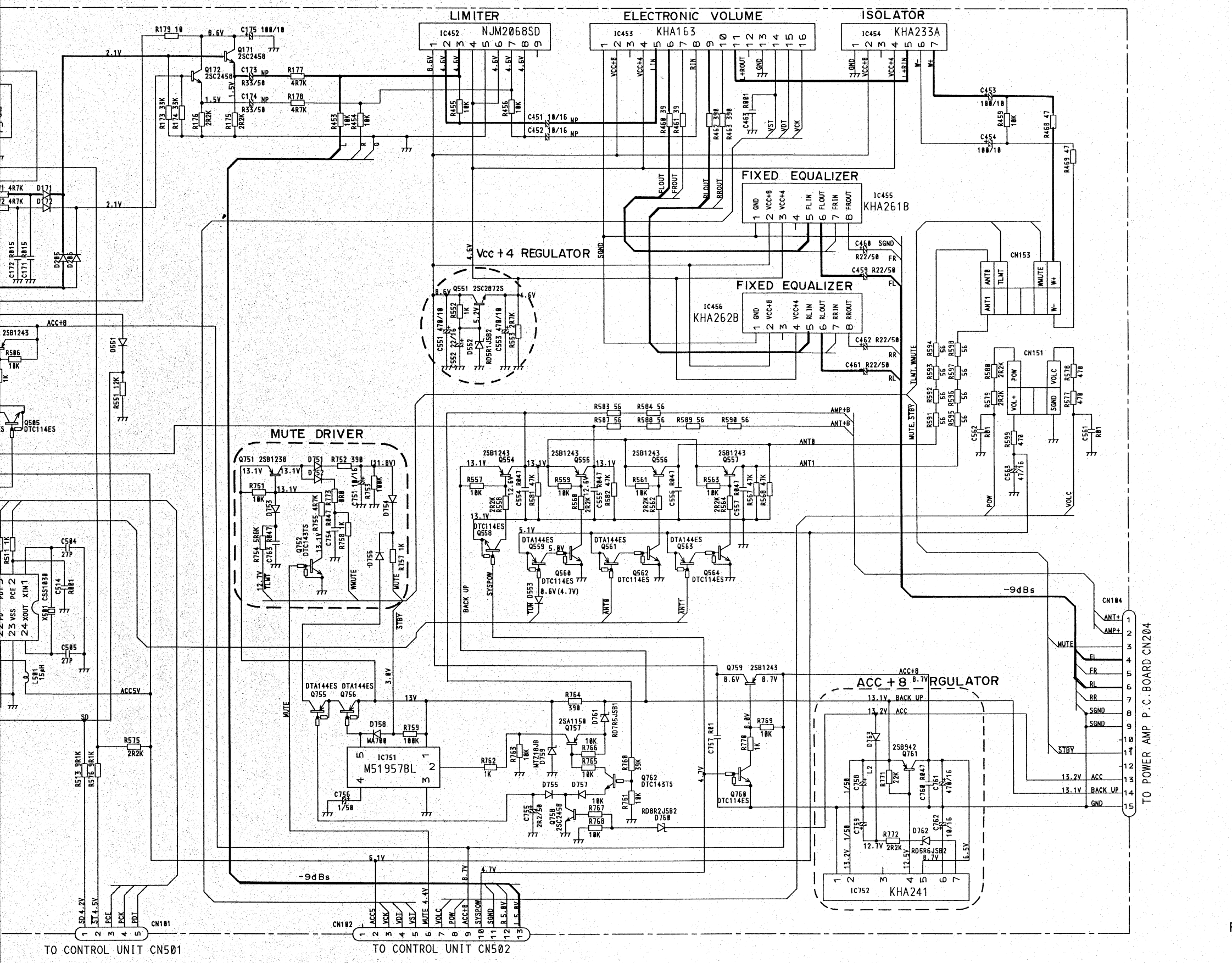
KEY BOARD UNIT
Consists of
KEY BOARD
VOLUME P.C.BOARD

TUNER AMP UNIT
Consists of
TUNER P.C.BOARD
POWER AMP P.C.BOARD
CONNECTOR P.C.BOARD

9. CIRCUIT DIAGRAM AND P.C. BOARDS PATTERN

9.1 TUNER P.C. BOARD




LIMITER
IC452 NJM2068SD
ELECTRONIC VOLUME
IC453 KHA163
ISOLATOR
IC454 KHA233A
FIXED EQUALIZER
IC455 KHA261B
FIXED EQUALIZER
IC456 KHA262B
Vcc+4 REGULATOR
MUTE DRIVER
IC751 M51957BL
ACC+8 REGULATOR
IC752 KHA241
CN153
CN151
CN104
CN101
CN102
TO CONTROL UNIT CN501
TO CONTROL UNIT CN502
TO POWER AMP P.C.BOARD CN204
-9dBs
-9dBs

TUNER P. C. BOARD

IC, Q Q761 Q760 Q759 Q551 IC752 IC456 IC453 IC455 IC454 Q751 Q752 Q757 IC452 Q762 Q758 IC751 Q756 Q755 Q554 Q558 Q172 Q555 Q559 Q171 Q560 Q561 Q556 Q562 Q557 Q563 Q507 Q564 Q503 Q61 Q505 Q501 IC501 Q502 Q504 Q506 IC27 IC502 IC26 Q520

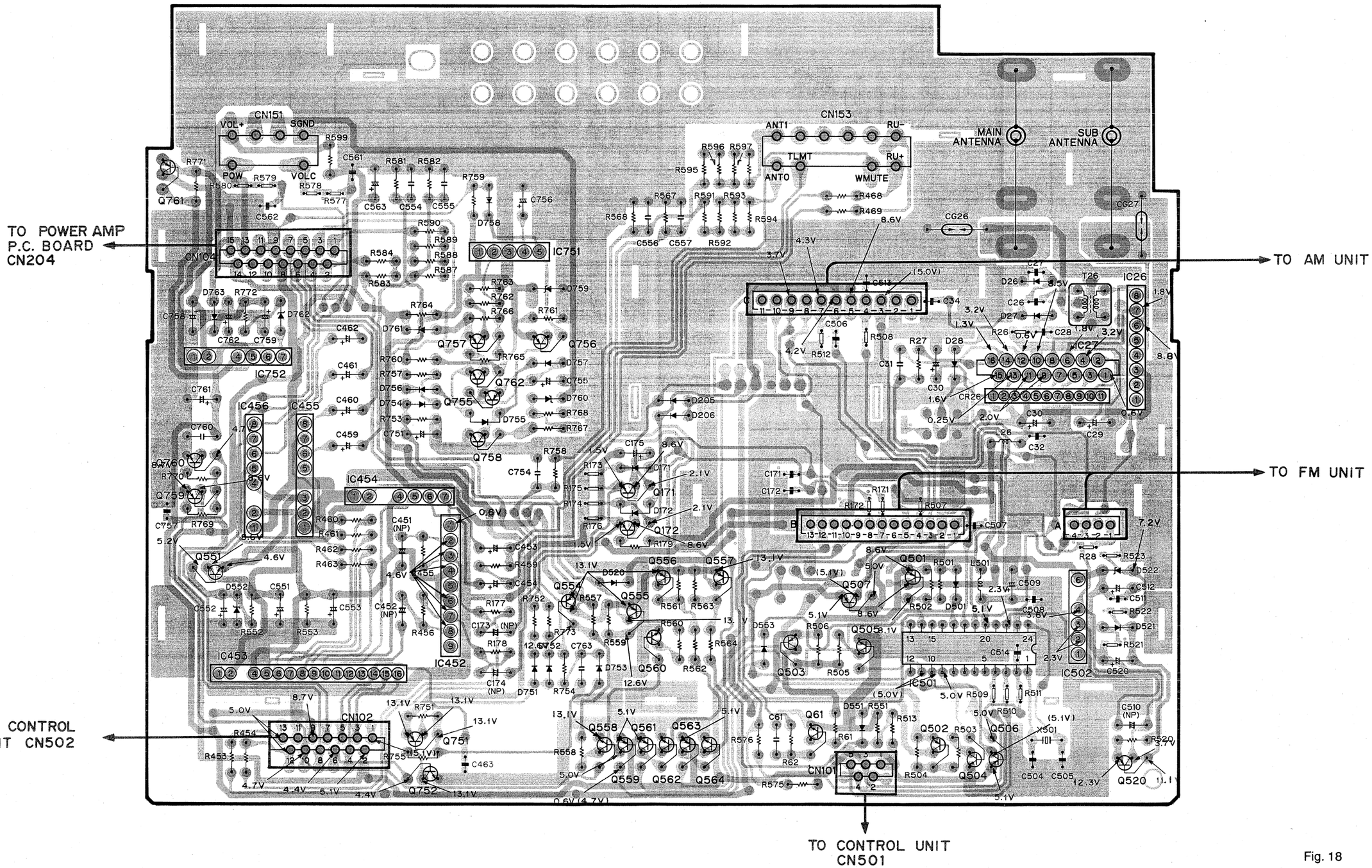


Fig. 18

9.2 POWER AMP P.C. BOARD AND CONNECTOR P.C. BOARD

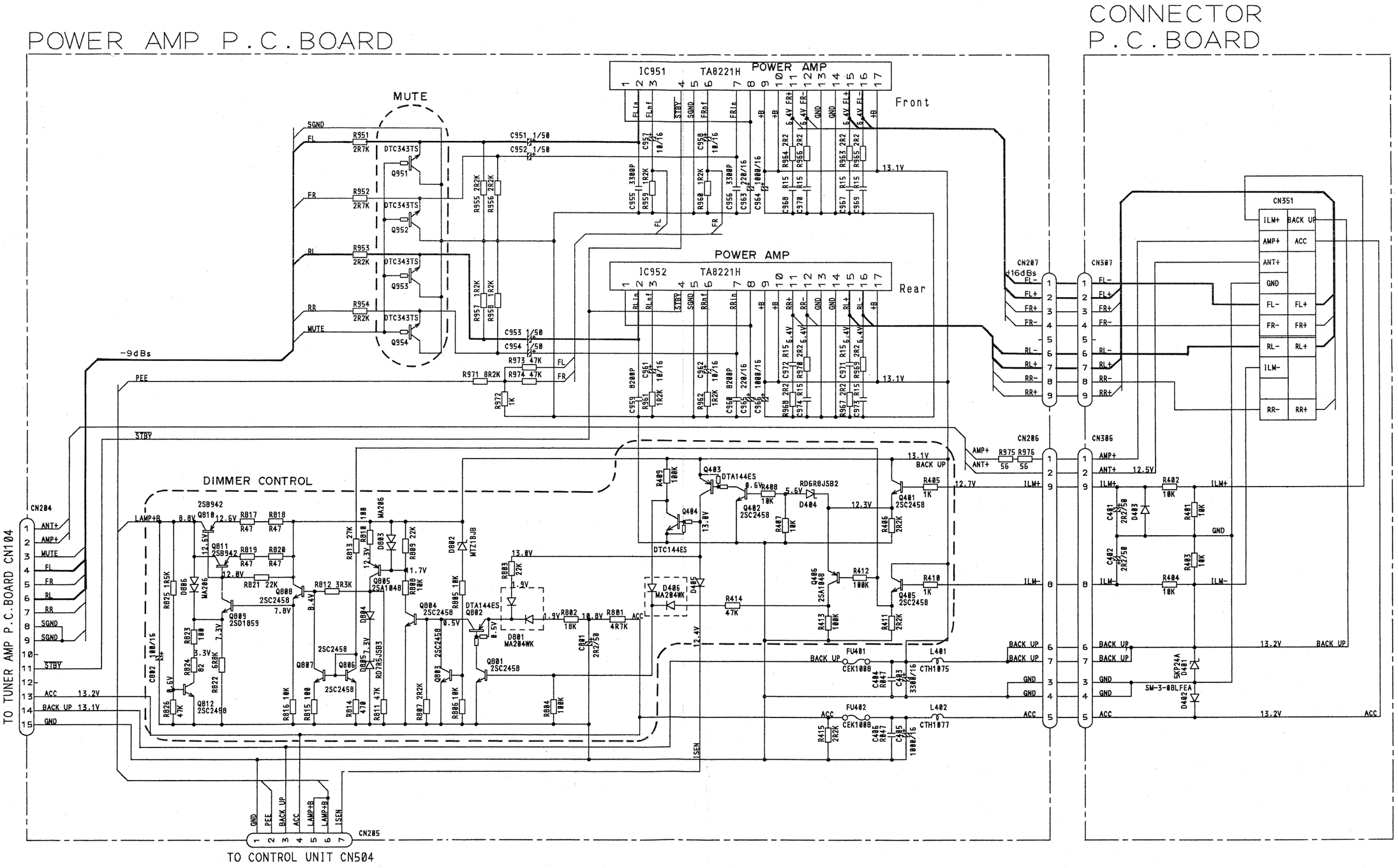


Fig. 19

POWER AMP P .C. BOARD

IC. Q IC951 Q952 Q951 IC952 Q953 Q954 Q406 Q810 Q809 Q811 Q804 Q808 Q805 Q802 Q807 Q803 Q405 Q806 Q801 Q812 Q404 Q402 Q403 Q401

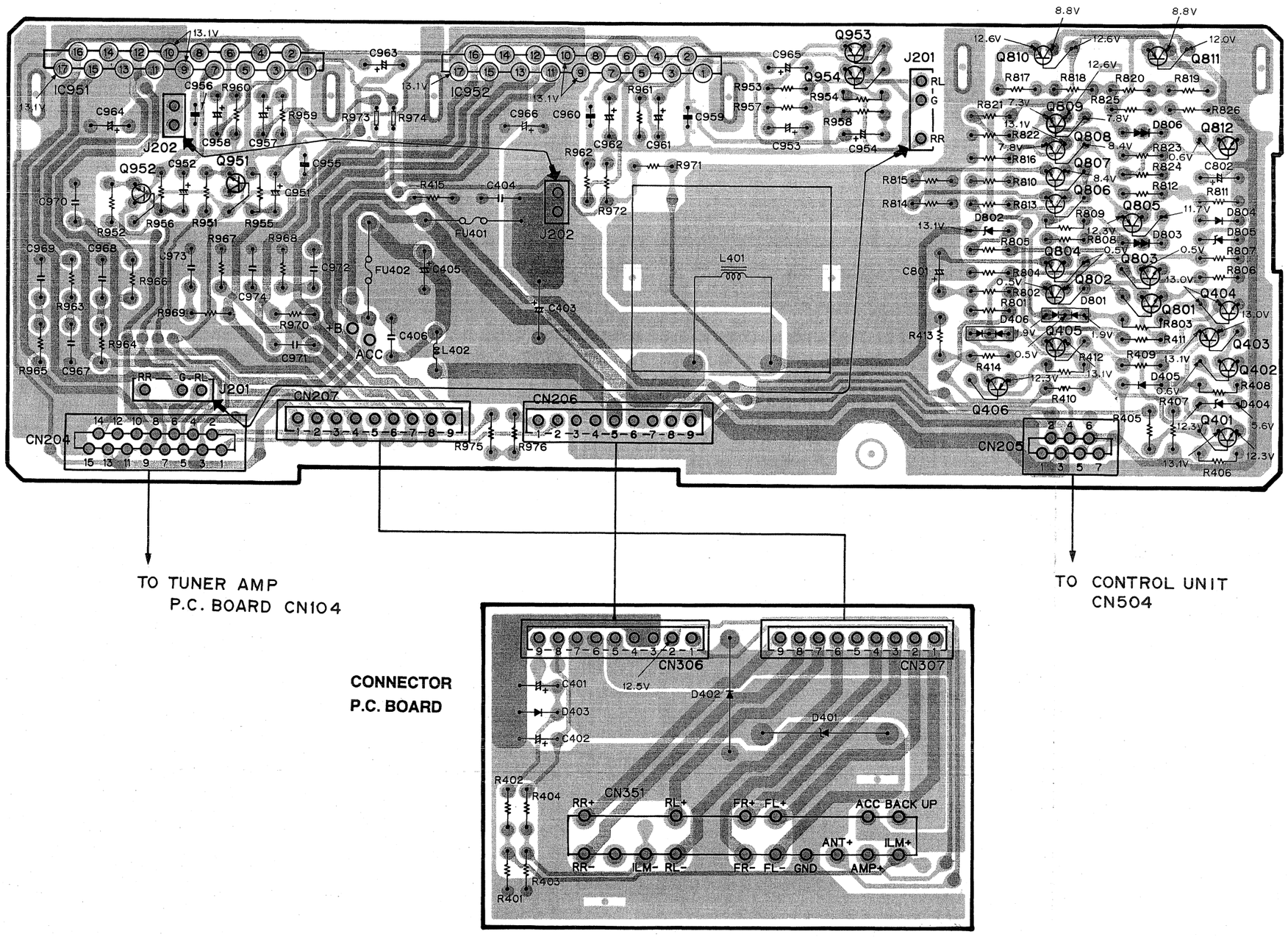
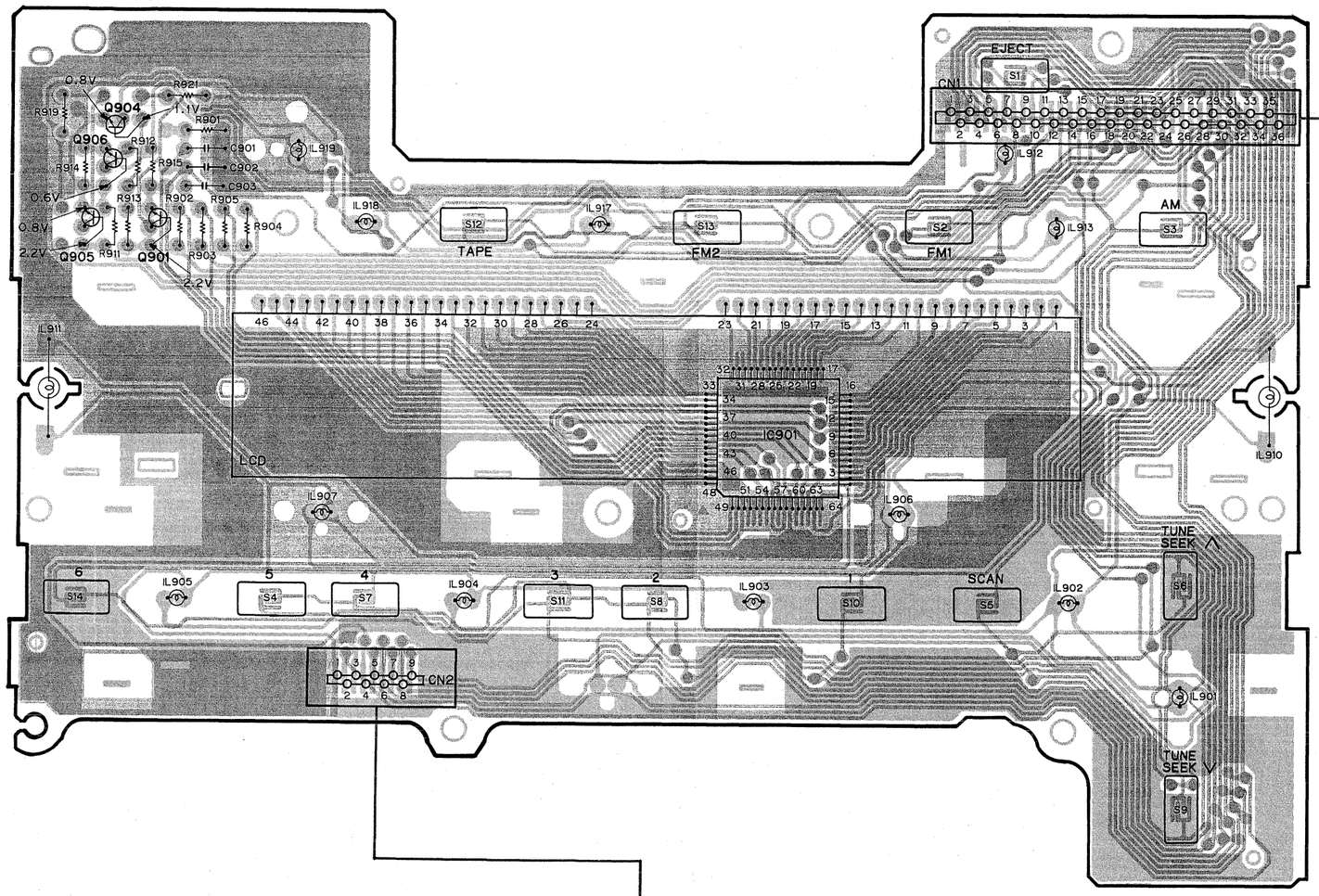


Fig. 20

9.3 KEY BOARD AND VOLUME P.C. BOARD

KEY BOARD

IC, Q Q906 Q905 Q904 Q901 IC901



VOLUME P. C. BOARD

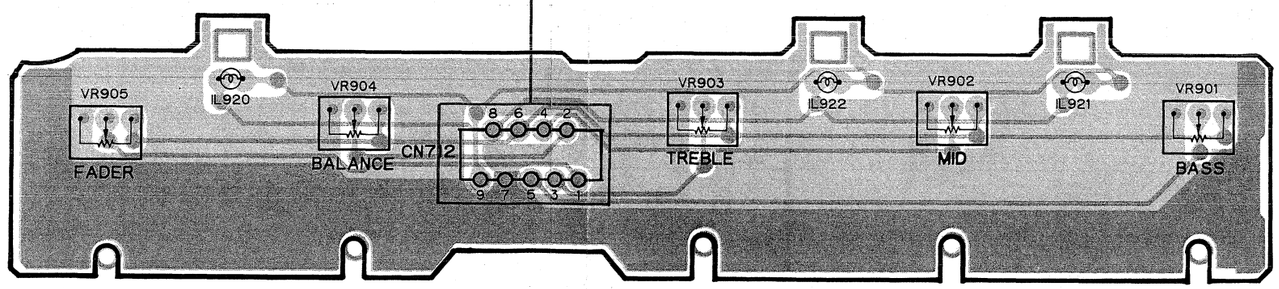


Fig. 21

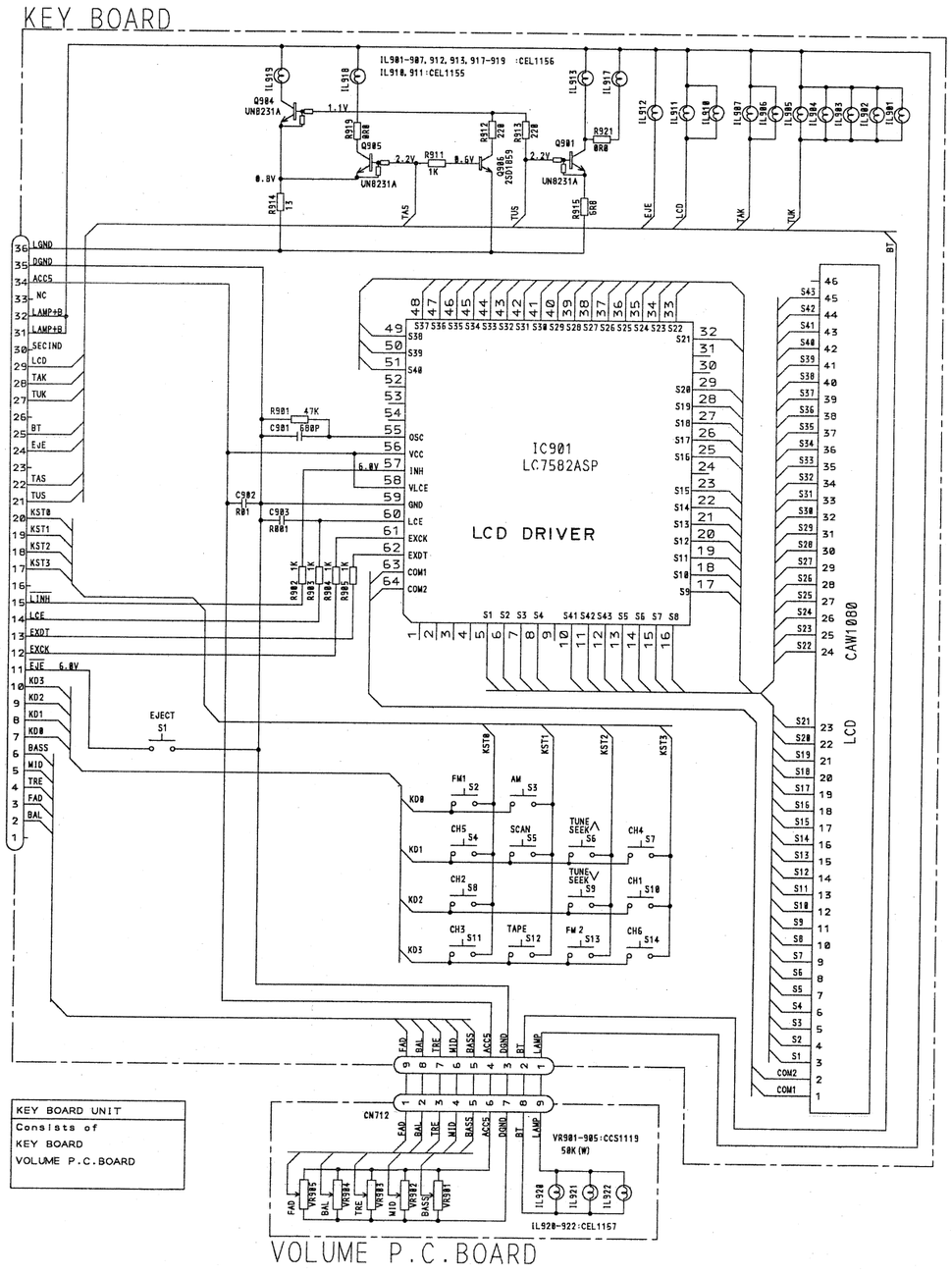


Fig. 22

9.4 FM UNIT

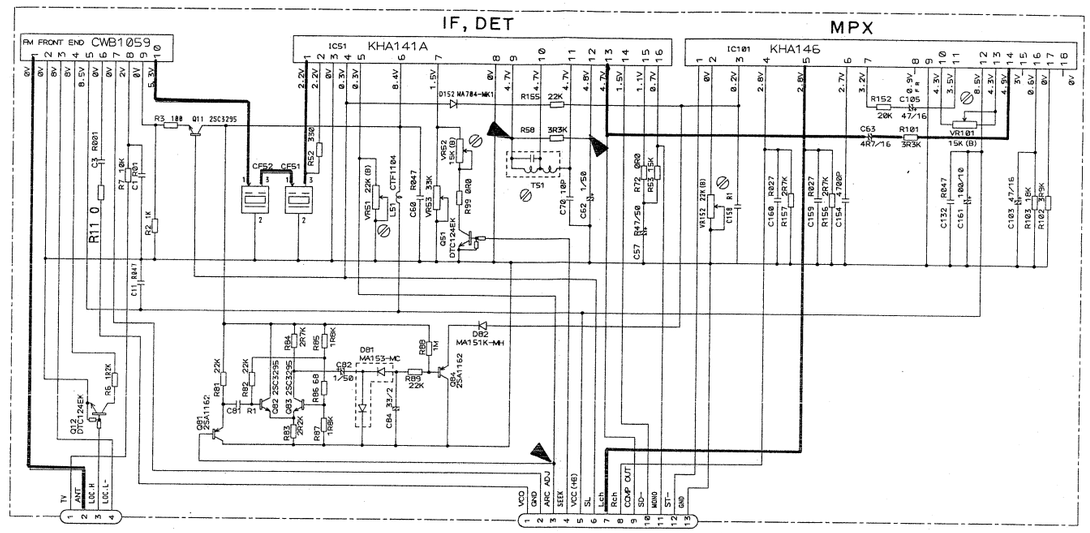


Fig. 23

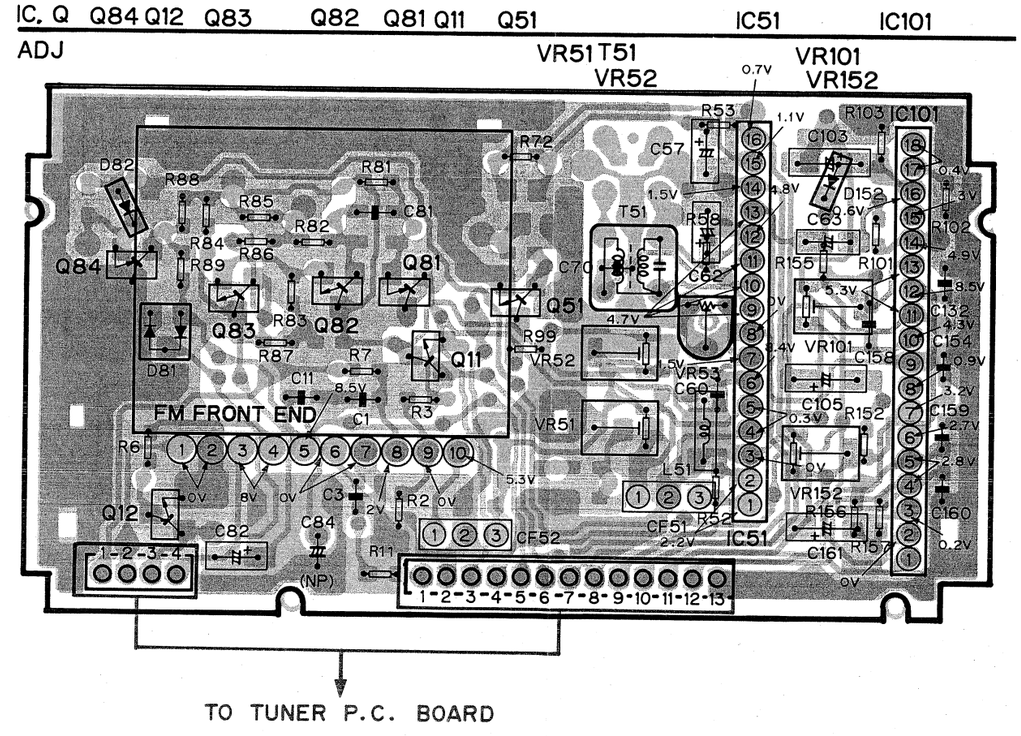
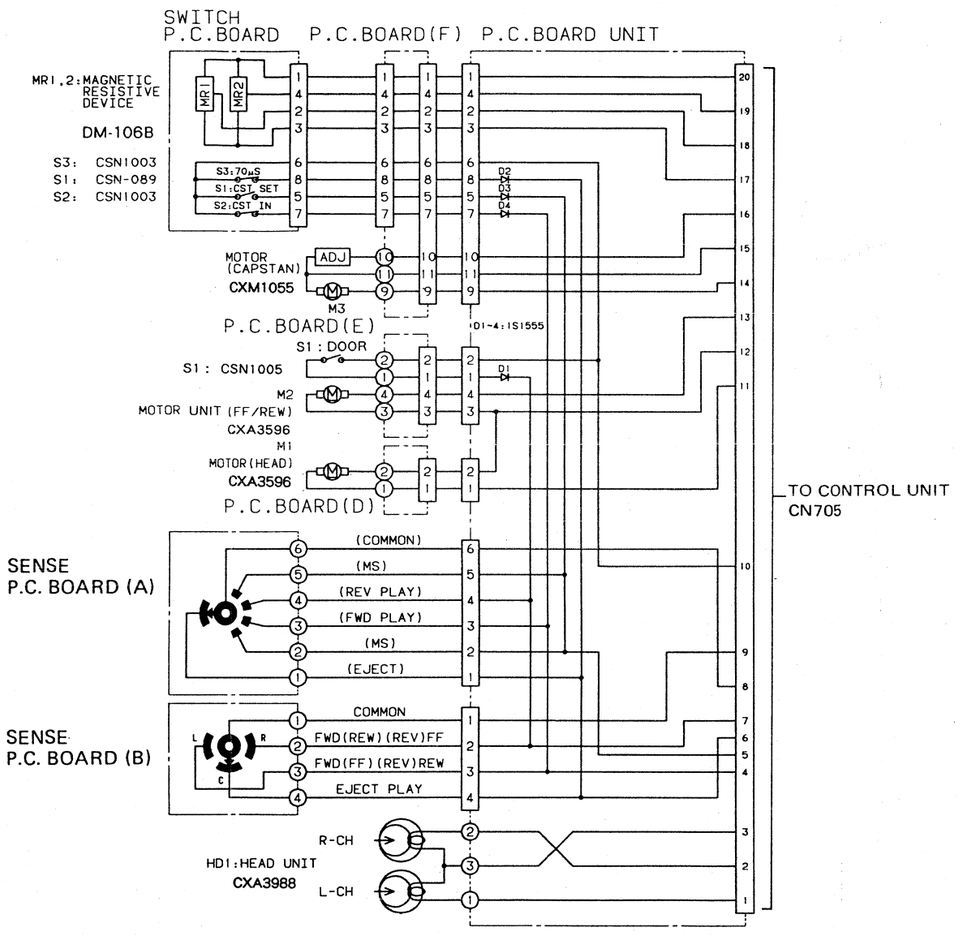


Fig. 24

9.5 CASSETTE MECHANISM ASSY



SWITCHES:

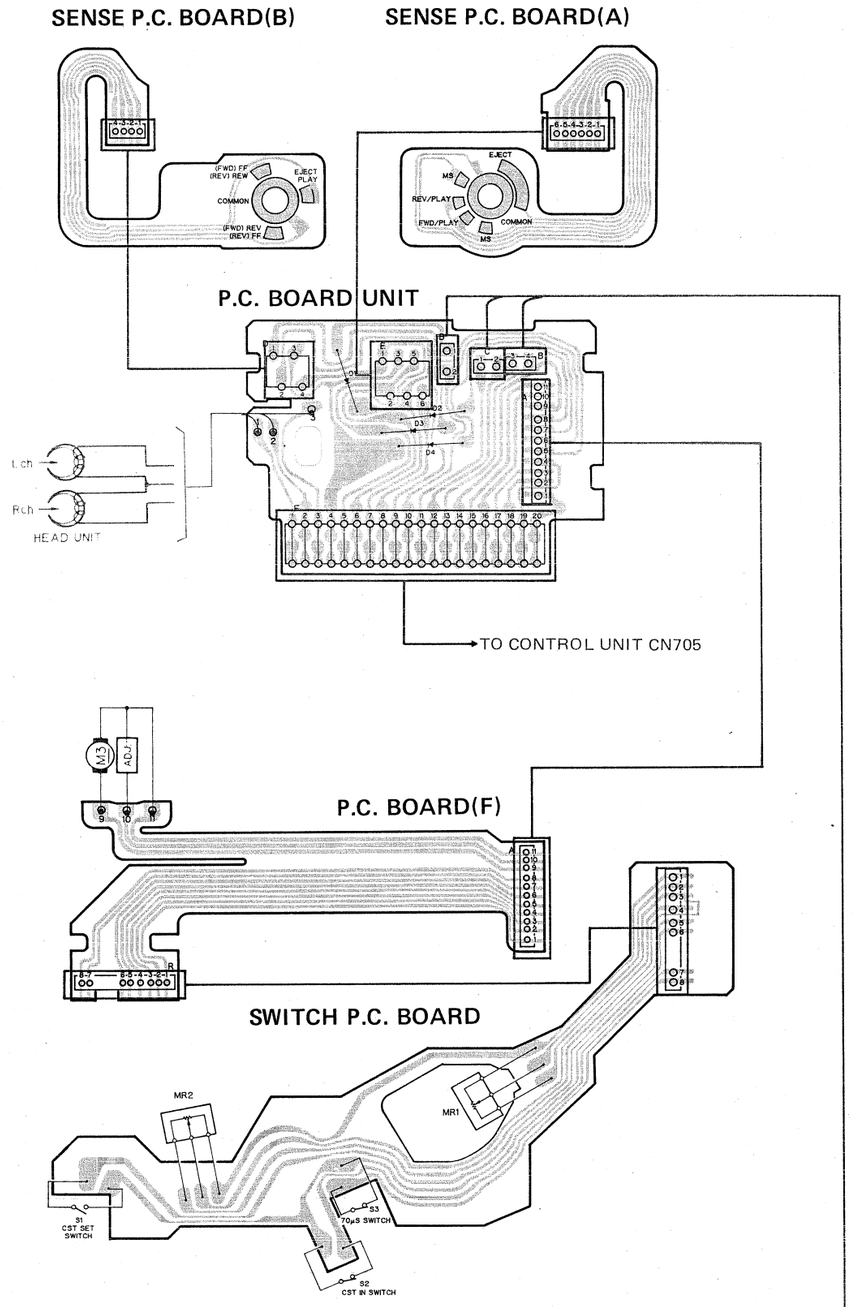
SWITCH P.C. BOARD

S1: CST SET SWITCH ..... ON—OFF
S2: CST IN SWITCH ..... ON—OFF
S3: 70μS SWITCH ..... ON—OFF

MISCELLANEOUS

S1: DOOR SWITCH ..... ON—OFF

Fig. 25



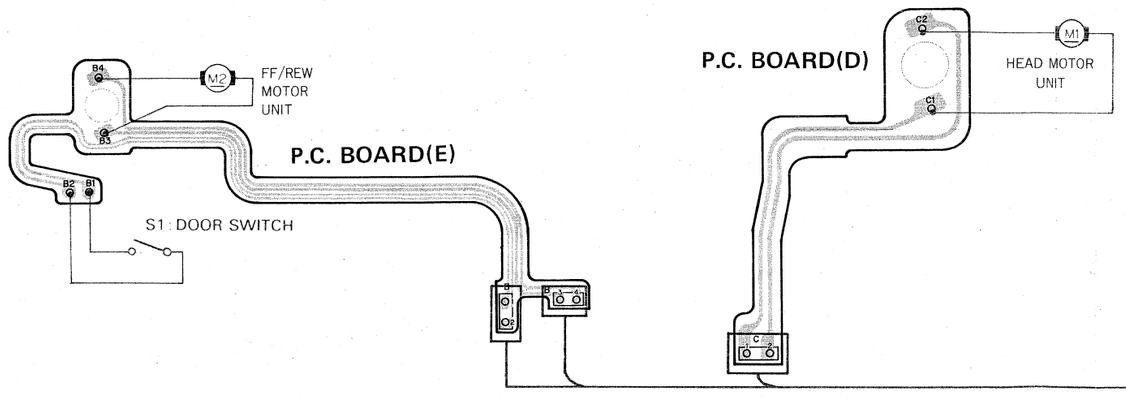


Fig. 26

9.6 AM UNIT

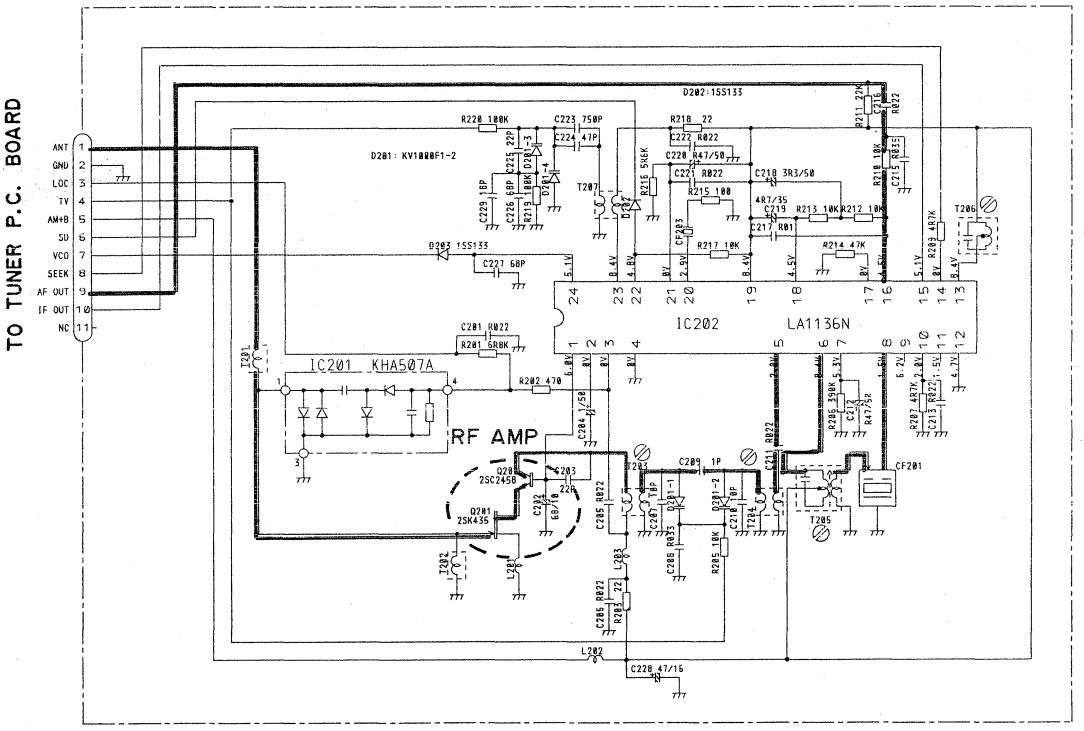


Fig. 27

IC201

IC,Q Q202 Q201 IC202

ADJ T203 T204 T205 T206

T207

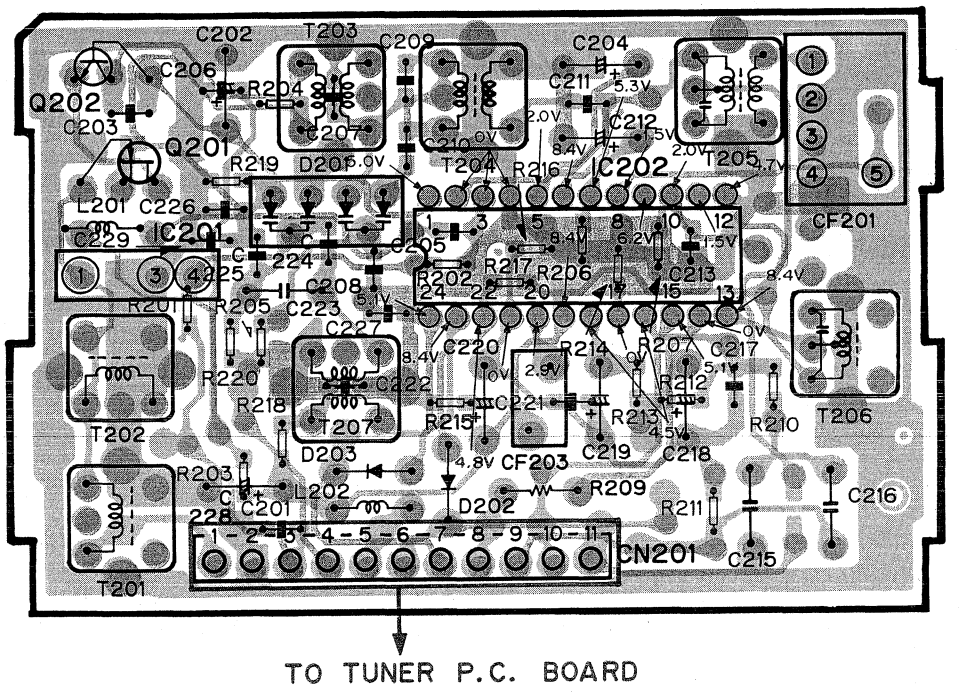


Fig. 28

10. CHASSIS EXPLODED VIEW (1)

NOTE:

- *The parts marked with "◉" may need long time to supply and their supply is subject to refuse as the case may be.*
- *Because the parts with encircled number shown on the dismantling drawing are not spare parts, we are unable to supply them in principle.*

Mark	No.	Description	Part No.
◉	1	Key Board Unit	CWS1164
	2	Screw	CBA1161
	3	Rubber	CNV2337
	4	Conductor	CNC2994
	5	Rubber	CNV2338
	6	Conductor	CNC2995
	7	Lens	CNV2335
	8	Holder	CNV2324
	9	Button(EJECT)	CAC2310
	10	Lens	CNV2333
	11	Holder	CNV2320
	12	Button(AM)	CAC2303
	13	Button(FM1)	CAC2460
	14	Button(FM2)	CAC2461
	15	Button(TAPE)	CAC2462
	16	Screw	PMS30P040FMC
	17	Spring	CBH1214
	18	Lens	CNV2336
	19	Holder	CNV2325
	20	Button(SCAN)	CAC2311
	21	Holder	CNV2326
	22	Button(SEEK TUNE)	CAC2312
	23	P.C.Board	CNP2273
	24	Holder	CNV1906
	25	Lamp	CEL1156
	26	Lamp	CEL1155
	27	Spacer	CNM2448
	28	Cushion	CNM2856
	29	·····	
	30	·····	
	31	Holder	CNV2327
	32	Lens	CNV2833
	33	Plate	CNM2530
	34	LCD	CAW1080
	35	Holder	CNC2992
	36	Lens	CNV2329
	37	Lens	CNV2330
	38	Door	CAT1296
	39	Holder	CNV2321
	40	Button(1, 2)	CAC2307
	41	Button(3, 4)	CAC2308
	42	Button(5, 6)	CAC2309
	43	·····	
	44	Knob	CAA1237
	45	Case	CNB1307
	46	P.C.Board	CNP2274
	47	Insulator	CNM2532
	48	Case	CNB1308
	49	Connector	CKS2012
	50	Volume	CCS1119
	51	Holder	CNC2993
	52	Nut	CBA-066
	53	Lens Assy	CXA4208
	54	Screw	BMZ26P050FMC
◉	55	Cassette Mechanism Assy	CXK1687
	56	Arm	CNC1280
	57	Washer	CBF-046
	58	Grille Unit	CXA3363
	59	Cushion	CNM3138

● Chassis (1)

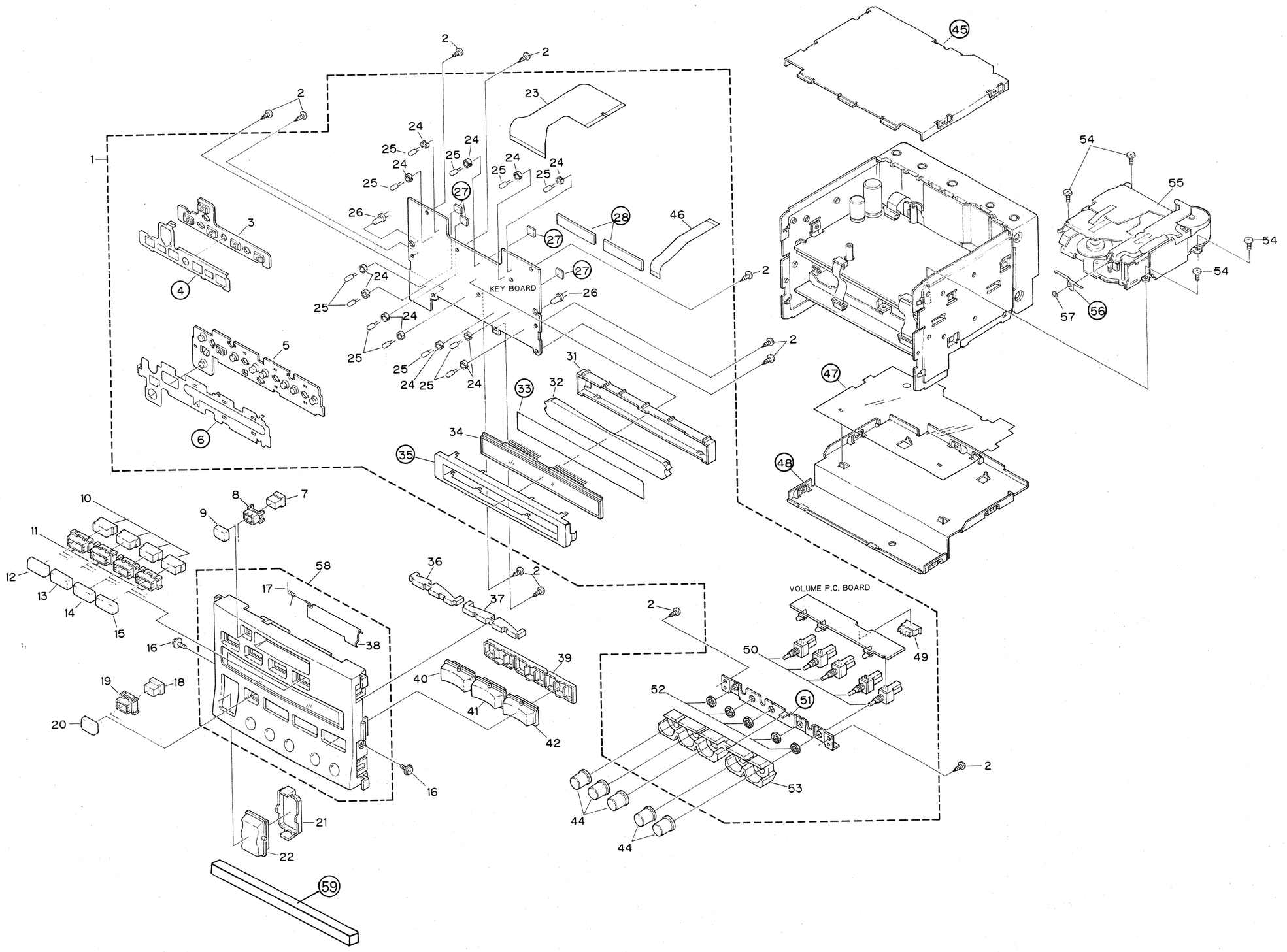


Fig. 29

11. CHASSIS EXPLODED VIEW (2)

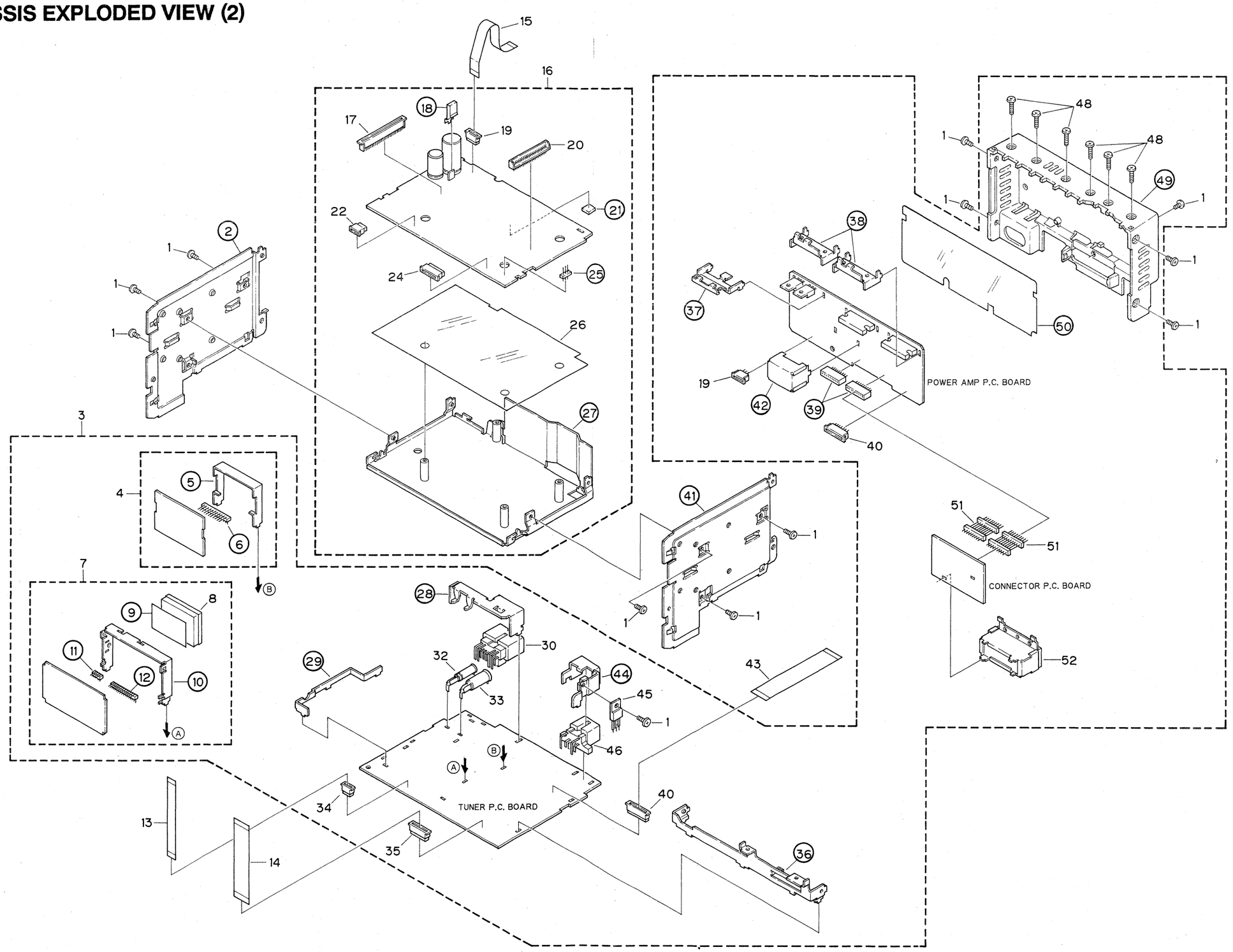


Fig. 30

● Parts List

Mark	No.	Description	Part No.
	1	Screw	BMZ30P060FMC
	2	Side Plate	CNB1309
◉	3	Tuner Amp Unit	CWM2195
◉	4	AM Unit	CWA1050
	5	Holder	CNC2352
	6	Plug	CKF1017
◉	7	FM Unit	CWE1212
	8	FM Front End	CWB1059
	9	Insulator	CNM2842
	10	Holder	CNC3414
	11	Plug	CKS1614
	12	Plug	CKS1621
	13	Connector	CDE2664
	14	Connector	CDE2665
	15	Connector	CDE2667
◉	16	Control Unit	CWM2196
	17	Connector	CKS1389
	18	Holder	CNC2328
	19	Connector	CKS2008
	20	Plug	CKS-659
	21	Spacer	CNM2857
	22	Connector	CKS2010
	23	·····	
	24	Connector	CKS2013
	25	Plug	CKS-291
	26	Insulator	CNM2533
	27	Chassis Assy	CXA3176
	28	Holder	CNC3133
	29	Earth Plate	CNC3003
	30	Connector	CKM1064
	31	·····	
	32	Antenna Jack	CKX1005
	33	Antenna Jack	CKX1006
	34	Connector	CKS1782
	35	Connector	CKS2009
	36	Holder	CNC2997
	37	Holder	CNC3136
	38	Holder	CNC3135
	39	Plug	CKS1485
	40	Connector	CKS1785
	41	Side Plate	CNB1310
	42	Case	CNC2250
	43	Connector	CDE2778
	44	Holder	CNC3106
	45	Transistor	2SB942
	46	Connector	CKM1087
	47	·····	
	48	Screw	BMZ30P140FMC
	49	Heat Sink	CNR1162
	50	Insulator	CNM2568
	51	Connector	CKS1973
	52	Connector	CKM1034

12. CASSETTE MECHANISM ASSY EXPLODED VIEW

• Parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Screw (M1.4×1.4)	HBA-147	46	Screw	PMS26P025FMC
2	Screw	BMZ20P040FMC	47	Spring	CBH-830
3	Bush	CLB-663	48	Screw (M2×2.5)	HBA-174
4	Spring	CBE1023	49	Spacer	CNW-945
5	Spring	CBH-867	50	Spring	CBL1050
6	Spring	CBH-837	51	Washer	CBF1025
7	Arm	CNC2373	52	·····	
8	Holder Unit	CXA2821	53	·····	
9	Gear Unit	CXA2088	54	·····	
10	Washer	CBF1026	55	Screw	BMZ20P025FMC
11	Gear	CNY-271	56	Gear	CNV1616
12	Washer	CBF-126	57	Collar	CLA1238
13	Spring	CBH-835	58	Flywheel	CNV1572
14	E Type Washer	CBG1003	59	Belt	CNT1046
15	Spring	CBH1277	60	Insulator	CNM2592
16	Pinch Roller Unit	CXA2608	61	·····	
17	Spring	CBH1197	62	Cover	CNC2829
18	E Type Washer	YE25FUC	63	Screw	BMZ20P030FMC
19	Arm	CNV1254	64	Screw (M1.7×3)	CBA1125
20	Washer	CBF1022	65	Holder	CNV1252
21	Collar	CNW-932	66	Screw (M2×25)	CBA-165
22	Spring	CBH-827	67	Guide Unit	CXA2380
23	Reel Unit	CXA2089	68	Spacer	CNC1651
24	Spring	CBH-868	69	Switch	CSN1005
25	Bracket Unit	CXA1481	70	Motor Unit (FF/REW, Head Position)	CXA3596
26	F/R Gear	CNW-944			
27	Screw	CBA1106	71	Screw	HBA-174
28	Switch (70μS, CST IN)	CSN1003	72	Bracket Unit	CXA2605
29	Screw (M1.7×5.5)	CBA1025	73	Pinch Roller Unit	CXA2609
30	P.C.Board	CNP1223	74	Screw (M2×2.5)	CBA1037
			75	Pulley	CNV1255
31	Switch (CST SET)	CSN-089			
32	Screw (M1.7×3)	CBA-186	76	Belt	CNT1047
33	Magnetic Resistive Device	DM-106B	77	Plate	CNC3632
			78	Screw	HBA-212
34	Washer	CBF-046	79	Pulley	CNV1256
35	Spring	CBH-887	80	Screw (M2×5)	CBA1054
36	Spring	CBH-886	81	Bracket Unit	CXA2606
37	Gear	CNV1075	82	Cover	CNV1489
38	Screw (M2×5)	CBA1054	83	Screw (M1.4×8)	CBA1055
39	Arm Unit	CXD-389	84	Spring	CBE-114
40	Arm	CNG-618	85	Azimuth Rubber	CNY-134
41	Washer	HBF-179	86	Head Unit	CXA3988
42	Lever	CNV1257	87	Spring	CBH-829
43	Spring	CBH1196	88	Gear	CNW-939
44	Motor (Capstan)	CXM1055	89	E Type Washer	YE12FUC
45	Chassis Unit	CXA3544	90	Gear	CNV1262

● Cassette Mechanism Assy

Mark	No.	Description	Part No.
	91	Holder Assy	CXA1546
	92	Spring	CBH1276
	93	Arm	CNV1495
	94	E Type Washer	YE15FUC
	95	P.C.Board	CNP1227
	96	P.C.Board	CNP1738
	97	P.C.Board	CNP1851
	98	Connector (6P)	CKS1075
	99	Connector (4P)	CKS1073
	100	·····	
	101	Arm	CNH-004
	102	Holder Assy	CXA1548
	103	Screw (M2×2)	HBA-209
	104	Connector (20P)	CKS-678
	105	Screw (M2×2×3)	CBA1022
	106	Diode	1S1555
	107	P.C.Board	CNP1737
	108	Arm	CNV1253
	109	Screw (M2×7)	CBA1060
	110	Screw (M2×4)	CBA1015
	111	Screw (M2×2.5)	CBA1041

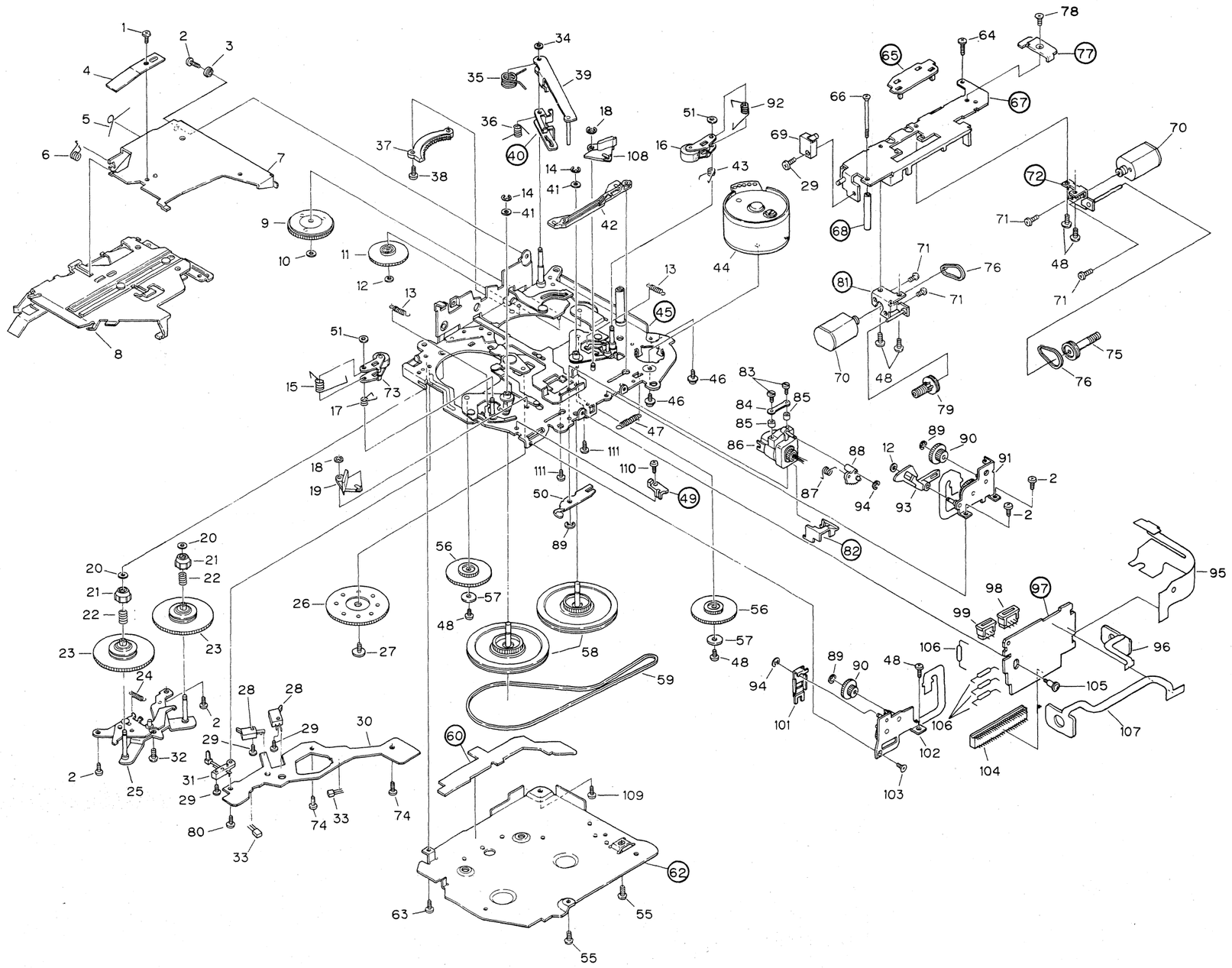


Fig. 31

13. ELECTRICAL PARTS LIST

NOTE:

- *Parts whose parts numbers are omitted are subject to being not supplied.*
- *The part numbers shown below indicate chip components.*
  Chip Resistor
  RS1/8S □□□J, RS1/10S □□□J
  Chip Capacitor (except for CQS.....)
  CKS....., CCS....., CSZS.....

Tuner Amp Unit
Consists of
• Tuner P.C.Board
• Power Amp P.C.Board
• Connector P.C.Board

Unit Number :
Unit Name : Tuner Amp Unit

MISCELLANEOUS

Mark	Circuit Symbol & No.	Part Name	Part No.
IC	26		KHA805A
IC	27		PA5011
IC	452		NJM2068SD
IC	453		KHA163
IC	454		KHA233B
IC	455		KHA261B
IC	456		KHA262A
IC	501		LC7218HS
IC	502		KHA510
IC	751		M51957BL
IC	752		KHA241
IC	951 952		TA8221H
Q	504 505 558 560 562 564 760		DTC114ES
Q	61		2SC3113
Q	171 172 401 402 405 758 801 803 804 806		2SC2458
Q	403 559 561 563 755 756 802		DTA144ES
Q	404		DTC144ES
Q	406 520 805		2SA1048
Q	501 502 503 554 555 556 557 759		2SB1243
Q	506 507		DTA114ES
Q	551		2SC2872S
Q	751		2SB1238
Q	752 762		DTC143TS
Q	757		2SA1150
Q	761		2SB942
Q	807 808 812		2SC2458
Q	809		2SD1859
Q	810 811		2SB942
Q	951 952 953 954		DTC343TS
D	26 27		1SV99
D	28 171 172 403 405 501 551 553 751		1SS133
D	205 206 520 521 752 753 756 757 804		1SS133
D	401		5KP24A
D	402		SM-3-08LFEA
D	404		RD6R8JSB2
D	406 801		MA204WK
D	522		RD5R6JSB1
D	552		RD5R1JSB2
D	754 755		1SS133
D	758		MA700
D	759 802		MTZ18JB
D	760		RD8R2JSB2
D	761		RD7R5JSB1
D	762		RD5R6JSB2
D	763		1SS133
D	803 806		MA206
D	805		RD7R5JSB3
L	26	Ferri-Inductor	LAU1R0M
L	401	Choke Coil	CTH1075
L	402	Inductor	CTH1077
L	501	Ferri-Inductor	LAU150K
T	26	Transformer	CTC-195
CG	26 27		DSP-201M
CR	26		CWW1145
X	501	Crystal Resonator	CSS1030
FU	401 402	Fuse 6.3A	CEK1008

RESISTORS

Mark	Circuit Symbol & No.	Part Name	Part No.
R	26		RS1/10S681J
R	27 771 803 809 821		RD1/4PS223JL
R	28 509 510 511		RS1/10S102J
R	61 401 402 403 404 407 408 455 456 501		RD1/4PS103JL
R	62 409 412 413 502 753 759 804		RD1/4PS104JL
R	171 172		RS1/10S472J
R	173 174		RS1/10S333J
R	175 176 579 580		RS1/10S222J
R	177 178 755 801		RD1/4PS472JL
R	179		RD1/4PS100JL
R	405 410 503 505 552 757 758 762 770 972		RD1/4PS102JL
R	406 411 415 558 560 562 575 772 807		RD1/4PS222JL
R	414 567 568 581 582 811 826		RD1/4PS473JL
R	453 459 766 767 768 769 805 806 808 816		RD1/4PS103JL
R	454 559 561 563 761		RD1/4PS103JL
R	460 461 462 463 752 764		RD1/4PS391JL
R	468 469		RD1/4PS470JL
R	504 506 557 751 763 765		RD1/4PS103JL
R	507 973 974		RS1/10S473J
R	508 523		RS1/10S103J
R	512		RS1/10S332J
R	513 576		RD1/4PS912JL
R	520 810 815 823		RD1/4PS101JL
R	521		RS1/10S152J
R	522		RS1/10S153J
R	551		RD1/4PS123JL
R	553		RD1/4PS272JL
R	564		RD1/4PS222JL
R	577 578		RS1/10S471J
R	583 584 587 588 589 590 591 592 593 594		RD1/4PS560JL
R	595 596 597 598 975 976		RD1/4PS560JL
R	599		RD1/4PS471JL
R	754		RD1/4PS562JL
R	760		RD1/4PS393JL
R	773		RD1/4PS0R0JL
R	802		RD1/4PS183JL
R	812		RD1/4PS332JL
R	813		RD1/4PS273JL
R	814		RD1/4PS471JL
R	817 818 819 820		RD1/4PSR47JL
R	822		RD1/4PS682JL
R	824		RD1/4PS820JL
R	825		RD1/4PS152JL
R	951 952		RD1/4PS272JL
R	953 954		RD1/4PS222JL
R	955 956		RD1/4PS222JL
R	957 958		RD1/4PS122JL
R	959 960 961 962		RD1/4PS122JL
R	963 964 965 966 967 968 969 970		RD1/4PS2R2JL
R	971		RD1/4PS822JL

CAPACITORS

Mark	Circuit Symbol & No.	Part Name	Part No.
C	26 32 38 508 511 561 562		CKSQYB103K50
C	27		CCSQCH100D50
C	28 513 514		CKSQYB102K50
C	29 33 509 762 957 958 961 962		CEA100M16L2
C	30 512 520 552		CEA220M16L2
C	31		CKCYB471K50
C	401 402 755 801		CEA2R2M50L2
C	61 404 406 554 555 556 557 754 760		CGCYX473K25
C	171 172		CKSQYB153K50
C	173 174		CEAR33M50NPLL
C	175 453 454		CEA101M10L2
C	403	3300μF/16V	CCH1037
C	405 964 966	1000μF/16V	CCH1003
C	451 452		CEA100M16NPLL
C	459 460		CEAR22M50L2
C	461 462		CEAR22M50L2
C	463		CKSQYB102K50
C	504 505		CCSQCH270J50
C	506 507		CCSQCH101K50
C	510	4.7μF/16V	CCH1005
C	551 553		CEA471M10L2
C	563		CEA470M16L2
C	751		CEA100M16L2
C	756 758 759 951 952 953 954		CEA010M50L2
C	757		CKSQYB103K50
C	761	470μF/16V	CCH-114
C	763		CGCYX473K25
C	802		CEA101M16L2
C	955 956		CKSQYB332K50
C	959 960		CKSQYB822K50
C	963 965		CEA221M16L2
C	967 968 969 970 971 972 973 974		CQMA154J50

Unit Number :
Unit Name : Control Unit

MISCELLANEOUS

Mark	Circuit Symbol & No.	Part Name	Part No.
IC	301		CWV1017
IC	601		PD4243
IC	602		CWW1178
IC	603		TC4028BP
IC	605		M51957BL
IC	606		CWV1001
IC	607		TC35095P
IC	851		MB88306P
Q	601		2SA1048
Q	702		2SC3474
Q	703 851		2SD1859
Q	704 705		2SC2458
Q	706		DTB133HV
Q	707 708		DTA114ES
Q	852 853 854 856 857 859 860 863 864		DTC144ES
Q	861 862		DTA144ES
Q	865		2SB1243
Q	866 867 868 869 871 872		DTB113ZV
Q	874 875 876 877 878 879 880 881 882		UN8231A
D	301 601 602 603 604 605 606 607 611		1SS133
D	608		HZS3BLL
D	610		1SS133
D	702		ERA15-02VH
D	703		HZS6B1L
D	704		RD5R6JSB2
D	705 706		RD7R5JSB3
D	851		HZS2CLL
L	601	Ferri-Inductor	CTF-157
L	602	Ferri-Inductor	LAU150K
IB	601 602 603		CWW1240
IB	604 605		CWW1233
IB	606		CWW1153
IB	607		CWW1126
IB	608		CWW1298
X	601	Crystal Resonator	CSS1029
VR	301 302	Semi-fixed 10kΩ (B)	VRTB6VS103

RESISTORS

Mark	Circuit Symbol & No.	Part Name	Part No.
R	301 302 305 306 615 621 622 636 637		RS1/10S473J
R	303 304		RS1/10S272J
R	307		RD1/4PS101JL
R	308 632 639 657 658 673 704 705 707		RS1/10S104J
R	601 602 603 604 605 606 620 628 630 634		RD1/4PS102JL
R	613		RD1/4PS223JL
R	614 652		RD1/4PS473JL
R	616 617		RS1/10S102J
R	623 624 625		RS1/10S471J
R	626 703		RD1/4PS471JL
R	627		RS1/10S105J
R	629 653 654 669 670 671 672		RD1/4PS222JL
R	635 678 679 682 702 854		RD1/4PS103JL
R	638		RD1/4PS104JL
R	651 663 664 706 708		RS1/10S473J
R	655		RD1/4PS102JL
R	656 659 660 661 662 681 853		RD1/4PS102JL
R	665		RS1/10S102J
R	674 675 676 677 851		RD1/4PS222JL
R	680		RD1/4PS272JL
R	701		RN1/2P6R8JL
R	710		RS1/10S333J
R	711		RS1/10S223J
R	852		RS1P101JL
R	855		RD1/4PS221JL
R	856		RD1/4PS130JL
R	857 858		RD1/4PS9R1JL
R	859 860 861 862 863		RD1/4PS8R2JL
R	864		RD1/4PS6R8JL

CAPACITORS

Mark	Circuit Symbol & No.	Part Name	Part No.
C	301 302		CKSQYB681K50
C	303 304 617		CEA220M10LS
C	305 306 701		CEA4R7M35LS
C	307 308		CEA010M50LS2
C	309 310		CEA4R7M16NPLL
C	311 313 707		CEA100M16LS2
C	312		CEA101M10L2
C	314		CEA101M10L2
C	601 602		CEA470M6R3LS
C	603		CEA100M25L2
C	604 605 613 616 709 714 716 851		CKSYB473K50
C	606 609 708 717		CKSYB103K50
C	607		CEAR22M50LS2
C	608		CEANL3R3M50LL
C	610		CQEA223J50
C	611 612		CCSQCH330J50
C	614		CASA010M25
C	615 852		CKSQYB102K50
C	618		CCSQCH101J50
C	619 620 622 623		CKSQYB103K50
C	706	4700μF/16V	CCH1061
C	711	2200μF/16V	CCH1001
C	712		CASA010M25
C	713		CEA470M16LS
C	715		CEA101M10LS

Key Board Unit
Consists of
- Key Board
- Volume P.C.Board

Unit Number :
Unit Name : Key Board Unit

MISCELLANEOUS

Mark	Circuit Symbol & No.	Part Name	Part No.
IC	901		LC7582ASP
Q	901 904 905		UN8231A
Q	906		2SD1859
IL	901 902 903 904 905 906 907 912 913 917		CEL1156
	918 919	Lamp 8V 60mA	
IL	910 911	Lamp 8V 100mA	CEL1155
IL	920 921 922	Lamp 8V 60mA	CEL1157
VR	901 902 903 904 905	Volume 50kΩ (W)	CCS1119
		LCD	CAW1080

RESISTORS

Mark	Circuit Symbol & No.	Part Name	Part No.
R	901		RD1/4PS473JL
R	902 903 904 905 911		RD1/4PS102JL
R	912 913		RD1/4PS221JL
R	914		RD1/4PS130JL
R	915		RD1/4PS6R8JL
R	919 921		RD1/4PS0R0JL

CAPACITORS

Mark	Circuit Symbol & No.	Part Name	Part No.
C	901		CKPYB681K50L
C	902		CKPYY103M16L
C	903		CKPYB102K50L

Unit Number :
Unit Name : AM Unit

MISCELLANEOUS

Mark	Circuit Symbol & No.	Part Name	Part No.
IC	201		KHA507A
IC	202		LA1136N
Q	201		2SK435
Q	202		2SC2458
D	201		KV1280F1-2
D	202 203		1SS133
L	201	Inductor	CTF-185
L	202	Ferri-Inductor	LAU680K
L	203	Ferri-Inductor	LAU330K
T	201	Coil	CTB1051
T	202	Coil	CTB-171
T	203	Coil	CTB1044
T	204	Coil	CTB1045
T	205	Coil	CTE1030
T	206	Coil	CTE1034
T	207	Coil	CTB1043
CF	201	Filter	CTF-100
CF	203	Ceramic Resonator	CTF1039

RESISTORS

Mark	Circuit Symbol & No.	Part Name	Part No.
R	201		RS1/10S682J
R	202		RS1/10S471J
R	203 218		RS1/10S220J
R	205 210 212 213 217		RS1/10S103J
R	206		RS1/10S394J
R	207		RS1/10S472J
R	209		RD1/4PS472JL
R	211		RS1/10S223J
R	214		RS1/10S473J
R	215		RS1/10S101J
R	216		RS1/10S562J
R	219 220		RS1/10S104J

CAPACITORS

Mark	Circuit Symbol & No.	Part Name	Part No.
C	201 205 206 211 213 221 222		CKSQYB223K25
C	202		CEA680M10LS
C	203 225		CCSQCH220J50
C	204		CEA010M50LS2
C	207 210		CCSQCH100D50
C	208		CKSQYB333K25
C	209		CCSQCH010C50
C	212 220		CEAR47M50LS2
C	215		CQMA393J50
C	216		CQMA223J50
C	217		CKSQYB103K50
C	218		CEA3R3M50LS
C	219		CEA4R7M35LS
C	223		CQPA751G2A
C	224		CCSQCH470J50
C	226		CCSQCH680J50
C	227		CCSQCH680J50
C	228		CEA470M16LS
C	229		CCSQCH180J50

EH-9261ZT

Unit Number :
Unit Name : FM Unit

MISCELLANEOUS

Mark	Circuit Symbol & No.	Part Name	Part No.
IC	51		KHA141A
IC	101		KHA146
Q	11 82 83	Chip Transistor	2SC3295
Q	12 51	Chip Transistor	DTC124EK
Q	81 84	Chip Transistor	2SA1162
D	81	Chip Diode	MA153-MC
D	82	Chip Diode	MA151K-MH
D	152	Chip Diode	MA704-M1K
L	51	Inductor	CTF1104
T	51	Coil	CTC1065
CF	51 52	Ceramic Filter	CTF1130
VR	51 152	Semi-fixed 22kΩ (B)	CCP1021
VR	52	Semi-fixed 15kΩ (B)	CCP1020
VR	53	Semi-fixed 33kΩ (B)	VRTB4VS333
VR	101	Semi-fixed 15kΩ (B)	CCP1020
		FM Front End	CWB1059

RESISTORS

Mark	Circuit Symbol & No.	Part Name	Part No.
R	2		RS1/10S102J
R	3		RS1/10S101J
R	6		RS1/10S122J
R	7		RS1/10S103J
R	52		RS1/10S331J
R	53		RS1/10S153J
R	58 101		RS1/10S332J
R	11 72		RS1/10S0R0J
R	81 82 89 155		RS1/10S223J
R	83		RS1/10S222J
R	84 156 157		RS1/10S272J
R	85 87		RS1/10S182J
R	86		RS1/10S680J
R	88		RS1/10S105J
R	99		RS1/10S0R0J
R	102		RS1/10S392J
R	103		RS1/10S183J
R	152		RS1/10S203J

CAPACITORS

Mark	Circuit Symbol & No.	Part Name	Part No.
C	1		CKSQYB103K50
C	3		CKSQYB102K50
C	11 60 132		CKSQYB473K25
C	57		CEVR47M50
C	62 82		CEV010M50
C	63		CEVNP4R7M16
C	70		CCSQCH100D50
C	81 158		CKSYB104K25
C	84	33μF/2V	CCH1055
C	103 105		CEV470M16
C	154		CKSQYB472K50
C	159 160		CKSQYB273K50
C	161		CEV101M10

Unit Number :
Unit Name : P.C.Board

Mark	Circuit Symbol & No.	Part Name	Part No.
D	1 2 3 4		1S1555

Unit Number :
Unit Name : Switch P.C.Board

Mark	Circuit Symbol & No.	Part Name	Part No.
S	1	Switch(CST SET)	CSN-089
S	2 3	Switch(CST IN.METAL)	CSN1003
MR	1 2	Magnetic Resistive Device	DM-106B

Miscellaneous Parts List

Mark	Circuit Symbol & No.	Part Name	Part No.
M	1 2	Motor Unit(Head.FF/REW)	CXA3596
M	3	Motor(Capstan)	CXM1055
HD	1	Head Unit	CXA3988
S	1	Switch(Door)	CSN1005